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ABSTRACT

This document contains the text of five hearings (July 30 and November 3-6, 1975) of the Subcommittee on Select Education of a bill authorizing the extension of appropriations for the National Institute of Education. (IRT)

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HEARINGS

BEFORE THE

SUBCOMMITTEE ON SELECT EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR

HOUSE OF REPRESENTATIVES

NINETY-FOURTH CONGRESS

FIRST SESSION

ON

H.R. 5988

TO EXTEND THE AUTHORIZATION OF APPROPRIATIONS FOR THE NATIONAL INSTITUTE OF EDUCATION, AND FOR OTHER PURPOSES

HEARINGS HELD IN WASHINGTON, D.C.
JULY 30; NOVEMBER 3, 4, 5, AND 6, 1975

Printed for the use of the Committee on Education and Labor

CARL D. PERKINS, *Chairman*

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NATIONAL INSTITUTE OF EDUCATION

WEDNESDAY, JULY 30, 1975

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SELECT EDUCATION OF THE
COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met, pursuant to notice, at 9:39 a.m. in room 2257, Rayburn House Office Building, Hon. John Brademas (chairman of the subcommittee) presiding.

Members present: Representatives Brademas, Chisholm, Lehman, Cornell, Beard, Hall, and Jeffords.

Staff present: Jack Duncan, counsel; Patricia Watts, administrative assistant; Jill Nevil, staff assistant; Christopher T. Cross, minority legislative associate.

Mr. BRADEMAS. The Subcommittee on Select Education of the House Committee on Education and Labor will come to order for the purpose of conducting hearings on H.R. 5988, a bill to extend the authorization of appropriations for the National Institute of Education.

[Text of H.R. 5988 follows:]

[H.R. 5988, 94th Cong. 1st Sess.]

A BILL To extend the authorization of appropriations for the National Institute of Education, to establish priorities on which the resources of the Institute will be concentrated, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 405(b)(2) of the General Education Provisions Act is amended to read as follows:

"(2) The Institute shall, in accordance with the provisions of this section, seek to improve education in the United States through concentrating the resources of the Institute on the following priority research and development needs—

"(A) improvement in student achievement in the basic educational skills, including reading and mathematics;

"(B) overcoming problems of finance, productivity, and management in educational institutions;

"(C) improving the ability of schools to meet their responsibilities to provide equal educational opportunities for students of limited English-speaking ability, women, and students who are socially, economically, or educationally disadvantaged;

"(D) preparation of youths and adults for entering and progressing in careers;

"(E) improved dissemination of the results of, and knowledge gained from, educational research and development, including assistance to educational agencies and institutions in the application of such results and knowledge.".

SEC. 2. (a) Section 405(c)(1) of such Act is amended by striking out "Eight members" and inserting in lieu thereof "A majority of the members".

(b) Section 405(c)(2) of such Act is amended by striking out "and" before "(B)" in the first sentence and by inserting the following before the period at the end of that sentence: ", and (C) the term of office of each member shall expire on September 30 of the year in which such term would otherwise expire,

(1)

unless a successor to that member has not been appointed and confirmed by the Senate by that date, in which case that member shall continue to serve until a successor has been appointed and confirmed".

SEC. 3. Section 405(e) of such Act is amended by adding at the end thereof the following new paragraph:

"(4) The Director may establish and maintain research fellowships in the Institute, with such stipends and allowances, including travel and subsistence expenses, as the Director may deem necessary to procure the assistance of highly qualified research fellows from the United States and abroad.".

SEC. 4. Section 405(h) of such Act is amended by inserting the following new sentence after the first sentence thereof: "There are also authorized to be appropriated for such purpose $80,000,000 for the fiscal year ending June 30, 1976, and for each of the two succeeding fiscal years.".

Mr. BRADEMAS. At the outset of these hearings, the Chair would like to recall for the benefit of the new members of the subcommittee that he and the gentleman from Minnesota, Mr. Quie, the ranking minority member of the full committee, and other members of this subcommittee warmly applauded the initiative which began in 1970 with the President's proposal to create the National Institute of Education.

This subcommittee conducted extensive hearings on the proposed Institute, and members of the subcommittee of both sides of the aisle strongly supported the concept of the National Institute of Education designed to address itself to educational research in this country.

The Chair would also like to observe that one of the reasons, in his view, that the Institute found such strong bipartisan support on this subcommittee and in Congress generally at that time, was an apprehension on the part of the Members of the Congress that the country had not benefited adequately from earlier Federal investments in educational research and that we required, if we were to improve the quality of education in the United States, an effective, visible, and comprehensive educational research effort.

The National Institute of Education was thereafter charged with supporting research in education at all levels—from the earliest years, indeed through life, in both formal and nonformal learning situations.

The Chair and members of the Education and Labor Committee have followed the developments of the Institute since its creation in 1972. Indeed, this subcommittee conducted oversight hearings on the NIE during the 93d Congress.

The early years of the Institute have been marked with both success and some difficulties which one—I, myself, think—should expect from any new organization. However, I am confident that the Institute will prove itself to be a viable entity in the total Federal educational structure and will be strengthened by some of its early adversities.

We are pleased to have with us this morning two of our distinguished colleagues, Congressman Bob Eckhardt of Texas and Congressman Donald M. Fraser of Minnesota.

We are also pleased to welcome for the first time before this subcommittee, the Assistant Secretary of Health, Education, and Welfare, Virginia Trotter, and the new Director of the National Institute of Education, Harold Hodgkinson.

We should also hear from John Corbally, Chairman of the National Council on Educational Research, and William Trumbull, president of the Educational Testing Service of Princeton, N.J.

We shall first hear from our colleague, Congressman Eckhardt. Mr. Eckhardt, we are pleased to have you with us this morning.

Mr. ECKHARDT. Thank you, Mr. Chairman.

STATEMENT OF HON. BOB ECKHARDT, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. ECKHARDT. Mr. Chairman and members of the committee, I welcome the opportunity to testify before the subcommittee in support of the programs of the Southwest Educational Development Laboratory. Its projects have played an important role in the increasing development of programs that meet the needs of many children in Texas and throughout the Nation.

In 1954, the 83d Congress passed legislation which authorized public funds for a series of educational research, demonstration and survey grants. This act, the Cooperative Research Act, was the Federal Government's first attempt to achieve higher standards in the educational systems of our Nation.

After this initial act, the interest in educational research began to grow. In 1964, an endeavor was made by a number of universities to conduct research on many of the problem areas in American education. These university centers were set up throughout the United States.

The following year, the Elementary and Secondary Education Act of 1965 provided for even more of these research centers, and was instrumental in enabling educators and researchers to begin a coordination of their educational research.

Under title IV of the ESEA, the U.S. Office of Education initiated a program of research and development centers across the Nation with the primary purpose of bridging the gap between findings of research and their implementation.

These centers were an essential link in the chain of events that transpired between the gathering of specific data and the design of methods to utilize this data in the most efficient manner. Because of these centers, knowledge gained through research could be developed into constructive programs. With the construction of such programs in mind, the National Institute of Education was created by the Education Amendments of 1972.

The National Institute of Education is a separate agency under the Department of Health, Education, and Welfare, which has been assigned the responsibility of leadership in the coordination of research data with innovative methods that best meet the increased needs of American education.

Specifically, the NIE was given the responsibility of attempting to alleviate the problems of and to achieve the objectives of American education, advancing the practice of education as an art, science, and profession; strengthening the scientific and technological foundations of education, and building an effective educational research and development system.

The research and development centers and regulatory education labs were transferred to NIE to achieve these goals. However, since the 1972 creation of this agency, the number of federally funded laboratories has dropped from 30 to 17. This reduction in the number of labs and centers has met with a great deal of concern not only within educational circles but, also, by many members of Congress.

The NIE is under the leadership of a new Director, Mr. Harold L. Hodgkinson. It is under his leadership that your committee, under the highly capable Mr. John Brademas, will be drafting the Institute's reauthorization.

I sincerely hope that this committee will closely examine the concerns of these laboratories and determine the future direction of labs and centers in the NIE structure.

The responsibility of such authorization and establishment of guidelines for the NIE is not one to be taken lightly. The Federal Government has a clear responsibility to provide leadership in the conduct and support of scientific inquiry into the educational process.

This research is indeed necessary when one considers that although America's investment in education is the largest in the world, some 18 million adults cannot read well enough even to file applications for medicaid, social security, bank loans, or driver's licenses.

I am particularly concerned, Mr. Chairman, with the Southwest Educational Development Laboratory, and shall ask that my full statement be put in the record. But I would like to stress that particular point.

The Southwest Educational Development Laboratory, based in Austin, Tex. is one of the eight remaining laboratories that has as its mission to direct research and development efforts which will meet the special problems and needs of intercultural education, especially those of economically disadvantaged Mexican-American, black, and Anglo children.

During this last school year, 1974–75, 18,870 students and 629 teachers throughout 28 school districts in Texas used materials that had been developed by SEDL. Thirty-four per cent of the total number of children and teachers was from the three major metropolitan areas of Texas: Houston, San Antonio, and Dallas.

As well as the SEDL-developed products, 37 products researched and developed by the other NIE labs and centers are in use in over 206 Texas cities. These products are used in all areas of education and include the classroom and instruction management program; career Education Staff Development and Community Involvement Guides, developed by the Ohio State University Center for Vocational Education; and the teams-games tournament program of the Johns Hopkins University Center for Social Organization of Schools.

The success of the products developed specifically by the Southwest Educational Development Laboratory is indicated by the marketing of a number of products which meet specific learning needs of children as well as by findings which aid agencies and educators in decisionmaking.

In product development, SEDL incorporates a technology to assess the success of a product, modify its unsuccessful components, and insure the educational growth of the child. The results of the technology developed by SEDL have reached approximately 130,000 children across the Nation.

In Texas, several products have been selected by the State for adoption on its textbook list. These products were only selected after careful examination by the Texas State Board of Education for implementation beginning August 1975.

Approximately 5,000 teachers and aides with over 110,000 children will benefit by these products that are the result of an earnest effort on the part of SEDL.

These products include: (1) Bilingual kindergarten. (2) Oral expression (Spanish language development), grades 1 and 2. (3) Bilingual reading (Spanish edition education), grades 1 and 2. (4) Bilingual oral language and reading, grades 1 and 2.

These products will be in use this next fall in Texas in grades 1 and 2. They are only a small part of a large number of SEDL products in use in 20 States of the United States and Guam, too.

SEDL products used in these other areas throughout the United States include all facets of education. These products include:

1. A multimedia social education program that is a Spanish language program for predominantly Spanish speakers.

2. An early childhood educational program which is designed for 3-, 4-, and 5-year-old children. The components of this particular program are for both native English-speaking children and native Spanish-speaking children.

3. A program entitled "Concepts and Language" that is an English language-based developmental program.

4. An informal learning program that utilizes multimedia to increase awareness and appreciation of children's folklore as well as a book and three albums of Mexican folk music and dances. A program of this type is instrumental in furthering pride and mutual understanding of different customs and cultures among children. These children might have very little exposure to customs other than their own without programs such as this.

5. A program that encourages analytical thinking called "Thinking and Reasoning."

6. The development of one of the two bilingual models for Spanish-speaking children in the United States.

SEDL has not limited its efforts to those programs that work directly with children. Their laboratory has also produced products in the course of their descriptive and experimental research which cater to the interests of a range of agencies and educators specifically charged with decisionmaking and with decision implementation.

Four of these programs deal with the problems of the education of children of migrant workers. One of these programs was a 7-month study and program for migrant children in Texas.

The study examined the feasibility of a compressed school year for these children. Other studies that were concerned with migrant students examined their entry and withdrawal patterns as well as the frequencies, time periods, and reasons for these late entry-early withdrawals from school.

A correlation was also examined between travel and work patterns and how migrant students, faced with such erratic patterns, could best be addressed during their secondary years of schooling.

Two projects concerned with gifted children have been instituted by SEDL. One of the projects was conducted in order to determine the cognitive stages of development in children from ages 5 to 9 that

distinguish them as a gifted child. The other research concerned with gifted children dealt specifically with defining the nature and needs of the gifted Mexican-American child.

Two additional projects were developed and researched by SEDL. One dealt with the determination of how helpful public education in Texas has been in preparation for work or postsecondary training, and the other, with a design for needs assessment and a model long-range plan for education in Louisiana.

SEDL's product development, related directly to the needs of children—especially Spanish-speaking children—and to educators and agencies in decisionmaking capacities, has carried with it the design and implementation of strategies for the most effective dissemination.

This major activity in product development has served to maintain active products in the field while providing a means for identifying continuing development and training needs for staffs utilizing these products. SEDL's dissemination process is an integral part of the development technology applied in product development.

America's future is its children. The quality of education they receive, and the degree to which schooling prepares them for later life, will determine what that future will be. Through research done by SEDL and similar programs under the National Institute of Education, we know far more about education and the learning process than we did a decade ago.

However, our society and the needs of all children, especially those who are socially and economically disadvantaged, continue to grow and change. We must meet these needs by assuring that such viable institutions are maintained. I would like to recommend that the committee consider the merits of language in the bill that will assure maintenance of programs such as the Southwest Educational Development Laboratory.

Mr. Chairman, I know that this committee is generally familiar with the total program, and I shall simply conclude here by indicating my very strong concern that this program be continued.

Mr. BRADEMAS. I appreciate your testimony very much, Mr. Eckhardt. I have visited this particular laboratory in Texas. I am, therefore, familiar with the outstanding work that it does. We shall certainly have in mind your own support of the kind of effort represented by SEDL and your support for the NIE. Thank you very much, indeed.

Mr. ECKHARDT. Thank you, Mr. Chairman.

Mr. BRADEMAS. The Chair is going to call a 3-minute recess.

[A brief recess was taken.]

Mr. BRADEMAS. The subcommittee will resume. We are very pleased to have with us our distinguished colleague, the gentleman from Minnesota, Mr. Fraser.

STATEMENT OF HON. DONALD M. FRASER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. FRASER. Thank you very much, Mr. Chairman.

I am here to testify with respect to a project about which I have some personal knowledge. I do this as evidence of the value of educational research efforts. What I wanted to describe to you, and I

will do this very briefly, is what we call the southeast alternative school project that is located in that part of the city of Minneapolis in which I grew up. In fact, one of the schools involved in the project is the elementary school that both I and my children have attended.

The southeast alternatives project consists of four elementary schools and one high school which were put together in an educational format that would permit one to have an option. To be more accurate, it would permit the parents to have an option as to which kind of school they wanted their children to attend.

Parents and children can choose among schools with a traditional format, a continuous progress setting, an open program, and a free school. Characteristic of this set of options is the very widespread acceptance, involvement, and enthusiasm surrounding the enterprise.

It began in 1971. It is going to phase out this year. The test of the interest in and support for the program can be seen in the response of the neighborhood and the people who live in the area.

For example, in 1971 when the project began, only 25 percent of the students in this part of the city attended schools other than that nearest to their home. Four years later, 50 percent attended schools that were not the school closest to their home. In other words, double that number moved to a school farther away than the closest school.

In 1971, at the beginning of the program, 35 percent of the parents said that they were pleased with the school program. Last year, 65 percent, or double the number, said they were very pleased with the program.

As a result of this set of educational options, we found that it, No. 1, provided a very effective test for decentralization. There was community level involvement both on an areawide level and within individual schools. The school system was so enthusiastic they decided to extend the program citywide. As Federal funds are phased out, not only will this southeast alternatives experimental schools program be able to continue, but it will be able to continue in the rest of the city as well.

Southeast alternatives had over 6,000 visitors last year looking at the program. Recently, some Canadian visitors from Manitoba came down to look at the program. They went back and announced their intention to use this kind of alternative program throughout their entire school system.

Mr. Chairman, this is a project that NIE funded and supported. It is a project which worked. I think it is a good illustration of the kind of innovative research efforts that NIE cannot only support, but also make available to other school systems across the country.

On the basis of the evidence of the success of the project in our area, I would say that support of NIE should continue with adequate funding.

Thank you, Mr. Chairman.

[Prepared statement of Donald M. Fraser follows:]

PREPARED STATEMENT OF HON. DONALD M. FRASER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. Chairman, members of the subcommittee, I appreciate the opportunity to speak to you this morning about the National Institute of Education.

In 1972, the National Institute of Education was created by Congress as a separate agency in the Education Division of the Department of Health, Educa-

tion, and Welfare. Its authorizing legislation charged the Institute with the responsibility of stimulating and directing local educational research and development efforts. The language of the legislation states that NIE has the responsibility to "provide leadership in the conduct and support of scientific inquiry into the educational process." More specifically, NIE has sought to identify the basic problems confronting American education, to provide technical and financial assistance to educators who must address these problems, and to disseminate the results of research developments to classrooms throughout the country.

This subcommittee's hearings on the renewal of the Institute's authorization will provide a useful forum for an assessment of NIE's first three years of activity. My purpose in appearing before you today is to describe a NIE project which has had a major impact on the educational patterns of the Minneapolis Public School system. The success of this project, the Southeast Alternatives Experimental Schools Project, has furnished a convincing illustration of the dividends which can accrue to our educational system from federal support of far-sighted and innovative educational research efforts.

Begun in 1971 and scheduled to be merged into the public school system in 1975, the Southeast Alternatives Project seeks to test the effects of comprehensive change in the educational structure and programming of the schools of southeast Minneapolis. Its five school sites offer four distinct approaches to learning—there is a traditional format, a continuous progress setting (in which students are grouped by ability level rather than age level), an open program (in which students are given a great deal of flexibility in structuring their day), and a free school (which de-emphasizes a structural curriculum). Although the most noticeable thrust of the program has been its implementation of educational options, it has also been characterized by a high degree of community involvement in the governance and programming of the schools.

That Southeast Alternatives has been successful is suggested by the decision of the district's Board of Education to make alternatives available to every student in the city by the fall of 1976. Additionally, the school sites draw great numbers of visitors each year—during the last school year alone, almost 6,000 non-Minneapolis visitors observed the classroom activities.

The National Institute of Education has played an essential role in the project's evolution. A cooperative funding agreement between Southeast Alternatives and NIE has encouraged quality control throughout the five year cycle; NIE support for a University of Minnesota/Minneapolis Public Schools Teacher Center has assisted the project's teachers in adapting to non-traditional learning environments; and the Institute's financial and technical assistance has allowed local educators a maximum amount of flexibility in developing their own model for comprehensive change.

I close with the suggestion, Mr. Chairman, that our experience in Minneapolis has provided evidence that with adequate Congressional support, NIE can be an effective means of translating the concept of educational research into concrete improvement in the educational opportunities available to all our children. I would like to submit for the record the following statement which provides a more detailed description of the nature of the project, its impact, and the role of the National Institute of Education. Thank you for your consideration.

SOUTHEAST ALTERNATIVES

In 1971, the United States Office of Education selected three school districts as pilot programs for the Experimental Schools Project; each district was given a grant to develop a continuous kindergarten through grade twelve program. The Minneapolis Public Schools district was one of these pilot sites. By the end of its five year funding cycle, Southeast Alternatives (the name chosen for the project) will have received a total of $6.5 million from the Office of Education and the National Institute of Education. The first 27 months of the project were funded directly by the Office of Education; the final 33 months have been funded through a contract entered into by the Minneapolis Public Schools and the National Institute of Education.

Located in the southeast sector of Minneapolis, Southeast Alternatives (SEA) consists of three elementary schools, one free school, and one high school. As of June of this year, approximately 2,300 students were enrolled in the five programs (the entire school system has an enrollment of 56,000 students). Each of the schools is open to any child within the southeast area.

The original SEA proposal of 1971 and the Minneapolis Public Schools/NIE Scope of Work Contract of 1973 singled out a central, overarching objective of

the project: to explore the potential for comprehensive change in the educational structure and programming of the southeast area schools. In terms of both organizational pattern and curriculum articulation, a K–12 continuity was to be developed. This continuity would in turn rest on the project's three foundation stones: the availability of distinct educational alternatives, the involvement of the community in program development and implementation, and the decentralization of decision-making authority.

The SEA/NIE contract stipulates that "the project will test four alternative school styles (K–6) and selected options in schooling programs for grades 7–12 articulated upon the elementary objectives." Stated somewhat differently, SEA offers parents, students, and teachers the opportunity to choose among alternative approaches to learning. Not only are parents and students encouraged to choose the school which best matches the students' needs and abilities, but teachers are able to select the school whose format best fits their personal approach to teaching.

The concept of alternatives is predicated upon the belief that no single learning environment is best for all children. By structuring discrete alternatives in the way space is organized and time is used, in the pace at which students are encouraged to proceed, in the degree to which students are allowed to formulate their daily program, and in the manner in which material is presented by the teachers (whether through a single teacher handling a particular class, a team of teachers exercising responsibility for a series of classrooms, or a teacher managing a specialized interest center), the SEA schools furnish learning environments which are responsive to divergent desires and needs.

Tuttle Contemporary School is in many ways similar to the traditional elementary school setting—the classrooms are age-graded, self-contained, and generally the responsibility of one teacher. But while an emphasis is placed on basic skills, Tuttle makes use of exciting contemporary learning methods such as computer terminals, arts and crafts workshops, and unusual educational games.

Pratt Continuous Progress School is divided into ungraded, multi-age classrooms, a setting which allows each child to proceed at his or her own rate. As in Tuttle, an emphasis is placed on attaining certain skill levels, but at Pratt the tempo is closely tailored to the particular student. Mornings are spent in a structured language arts, mathematics, and social studies program; afternoons are devoted to two week courses on subjects chosen by the students.

Marcy Open School organizes its day into four main time blocs: the morning meeting in which plans for the day are discussed; project time in which students work on individual or group projects of their own choosing; center time in which students use the woodworking, music, pottery, science, nature, media, or other centers; and basic skills time in which students are involved in more traditional reading and mathematics tasks. Students do not work out of any particular classroom and while teachers are centered in a single room, they are free to develop the room in any way they like.

Southeast Free School offers a K–12 program (unlike the K–6 programs of Tuttle, Pratt, and Marcy). Loosely grouped into younger, middle, and older age categories, the students actively participate in local and national affairs and causes. For example, the school has recently organized trips to California (where they observed activities of the United Farm Workers), Mexico, and, just this spring, Washington, D.C. The school steers away from a highly structured curriculum, preferring instead to encourage students to make their own choices about their use of time. Minimum levels of achievement are expected, however, and basic skills resource centers include records of a student's progress.

Marshall-University High School attempts to extend alternatives past the elementary level by offering a wide range of courses and by allowing a student (with parental consent) to design his or her own educational program. Students are able to choose from forty or fifty English, mathematics, and social studies courses, to develop independent study courses, and to become involved in a number of off-campus learning programs (for example, students may attend classes at the University of Minnesota or earn credits through work in the community).

The evolution of these alternatives has made it necessary for teachers to develop skills appropriate to non-traditional learning environments. Soon after the creation of SEA, it became apparent that staff development programs would be a critical element in the project's success. In 1972, NIE was asked by the Minneapolis Public Schools to help fund a SEA teacher center which would serve the inservice needs of the program. The Institute agreed. Since 1973, a joint University of Minnesota/Minneapolis Public Schools Teacher Center has provided invaluable assistance to SEA by helping staff meet the challenges of educational alternatives.

Southeast Alternatives is perhaps foremost a test of alternative education. Yet it is also a test of decentralized governance. Over the last few years, the Minneapolis Public Schools have attempted to decentralize their administrative structure. Ultimate decision-making authority continues to reside at the Board of Education and the central administration, but four administrative areas have been created (the North, East, West, and Southeast—with the closing of the SEA funding cycle, the Southeast and West administrative areas will be merged), each with their own Superintendent, each responsible for the day-to-day operation of the area schools. Under this scheme, decision-making responsibilities have, to a significant degree, been transferred to the SEA director, the school administrators and staff, and the community.

Decentralized governance has occurred in two respects. First, decision-making authority has passed from the Board of Education to the project. Second, each school has been given wide flexibility in determining its program.

On a project-wide level, two groups are involved in the governance process. The first is the Southeast Council. Charged with the responsibility of meeting monthly with the SEA director to advise him about community concerns, the Council includes parents, teachers, and students. The second group is the SEA Management Team. This body, which includes the director, principals of the five schools, and managers of the K–12 programs, decides the major policy questions which determine how the project is to be run.

On the individual school level, all five programs have established advisory/governing councils comprising parents, staff, faculty, and occasionally students. According to a recent study of participation in governance prepared by the SEA Internal Evaluation Team, "A variety exists in the roles and organizations of these groups, reflective of the variety in the alternative educational programs in SEA which these groups serve. The groups spend most of their time on planning programs and developing procedures for implementing these programs, and less time on budget and personnel issues."

The southeast community was integrally involved in the formation of SEA. Consequently, a vested interest in the program's success was immediately created. As the project has unfolded, this vested interest has been nurtured and broadened into a consensus as to the validity of the project's goals and approach. Through the active participation in policy-making of all elements within the school community, decisions concerning financing, staffing, programming, and evaluations have had their roots in community preferences. Perhaps this helps explain the widely felt feeling of satisfaction with the project—because the community has been assured of a major voice, SEA's evolution has been in fundamental harmony with community sentiments.

The third characteristic of SEA is the involvement of community members and resources in the schools' educational programs. This characteristic is closely interwoven with community participation in the governing process insofar as the advisory/governance bodies at each of the schools play a pivotal role in determining the contours of the school day activities. However, this characteristic refers more specifically to the schools' utilization of community volunteers and resources.

By an extensive use of volunteers and other community resources, the schools are able to maintain a low-adult/student ratio, expose a wider segment of the community to school programs, and integrate students into their social and political surroundings on a more regular basis. For example, the Southeast Free School has estimated that in any given week almost 25 parents, student teachers, and college students spend five hours apiece doing volunteer work for the school. Similarly, Marcy Open School's 1974 Community Day Activities (extending over three months) utilized over 70 different site locations as resources and drew one of every four Marcy parents to away-from-the-building activities.

THE IMPACT OF SOUTHEAST ALTERNATIVES

In attempting to assess the impact of the Southeast Alternatives project, three spheres of influence can be identified: the southeast Minneapolis community itself, the Minneapolis Public School system as a whole, and other school systems

That SEA has fundamentally altered the area's educational patterns strikes me as beyond question. The foregoing discussion has sought to underscore both the degree to which SEA has replaced traditional programming with distinctly different approaches to learning and the extent to which the community has become involved in the governance and programming of its schools. The following results of the SEA Evaluation Team's Parent and Staff Surveys reinforce these con-

clusions: In 1971, 25% of SEA students attended schools other than those nearest their home; in 1975, almost 50% did; in 1974, 80% of SEA staff members felt that SEA was more effective than traditional programs in getting community members to participate in school programs; in 1971, 35% of SEA parents were pleased with the southeast schools; in 1974, 65% were.

Moreover, the provision of options has not meant, as some feared, a diminution in students' mastery over basic skills. Students enrolled in SEA programs have scored well on city-wide standardized tests (it should also be noted that many feel standardized tests to be an inadequate gauge of the learning which occurs in a nontraditional setting).

The impact of SEA's successes on the rest of the school system has been considerable. Perhaps the most noteworthy testimony to this impact is the decision of the Minneapolis schools to extend alternatives city-wide. In the words of the Superintendent of Schools, John B. Davis:

"What we have begun in southeast Minneapolis has not gone unnoticed. The nation is watching and envious. Parents, students, and our own faculty in many parts of the city have asked and have demanded alternatives for their schools, and they are being provided. The School Board has led the way in its support. The Board has set a goal that every elementary pupil will have an alternative available to him or her by 1976."

In this vein, it was recently announced that Marshall-University High School will add a 6–12 open school program and a 6–12 continuous progress program in the fall. Thus, every student in southeast Minneapolis will have the opportunity to follow a given alternative through the K–12 continuum.

The inception and development of new learning models is invariably costly in terms of money, time, and other human resources. Hopefully, the SEA experience will help minimize these costs at other sites. The building on the SEA experience has already begun. There will be a number of alternative programs in each of the other three administrative areas when school begins in the fall. In attempt to prepare teachers for the implementation of these options, the school district arranged last year for 1,500 district teachers to spend a week in the SEA program. Not only were these teachers given a first-hand exposure to classroom activities, they were also incorporated into discussions and seminars on nontraditional learning methods.

The vast number of non-Minneapolis people who visit SEA annually (5–6,000 this year alone) suggests that the attractiveness of the SEA model is not limited to a particular school system. To cite one example, last year the entire teaching staff of Canada's Manitoba province came to observe SEA—they subsequently announced their intention to introduce alternatives to their system.

THE ROLL OF NIE

The financial and technical support of NIE has furnished SEA with the underpinnings essential to its viability. The Institute's contributions have been three-fold.

First, by entering into a cooperative funding contract with the Minneapolis Public Schools, the Institute ensured that controls over the quality of educational services would be maintained after federal funding had been terminated. The contract stipulated that there would be a gradual phase-out of federal funding over a five year period—as the federal share of the burden decreased, the local share would increase until Minneapolis finally assumed full fiscal responsibility for the project. An automatic incentive to develop a self-sufficient program was therefore built into Minneapolis' side of the equation. In this way NIE maximized the likelihood that the experimental school cluster would be able to operate within the public school system.

Second, NIE has attempted to provide for the needs of teachers and administrators by encouraging the formation and expansion of the University of Minnesota/Minneapolis Public Schools Teacher Center. Its support of the Center represents a recognition of the need to retool and regenerate teachers who have been trained in traditional learning environments. This support also reflects an understanding of the inherent value of forging cooperation between the university and the public schools in designing preservice, inservice, and curriculum development programs.

Finally, NIE has provided local educators with the opportunity to design their own models of comprehensive change. The Institute has turned away from a posture which demands that predetermined Washington blueprints be transplanted throughout the country; it has chosen instead to furnish the financial and tech-

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nical wherewithal necessary to assist a locally formulated proposal. Ron Alvarez, the NIE project director for SEA, emphasized this notion in a recent evaluation of SEA's progress:

The satisfactory aspects of the projects are increased by the fact that they have been developed and put together by local people—they are not something that is imposed by Washington. (In such an arrangement, the) project director acts as a partner or counselor.

The Institute has had its share of birth and growing pains. Yet, it has also had its successes. The concept of federally directed and stimulated educational research is a powerful and worthy concept, indeed an indispensible concept. With proper leadership and adequate financial support, the National Institute of Education can become an increasingly effective tool with which to translate this concept into improved educational opportunities for all our children.

Mr. BRADEMAS. Thank you very much, Mr. Fraser. I think that in view of some of the criticisms that we have heard about educational research generally as well as of NIE with respect to the capacity of NIE educational research, it would make a concrete impact on the school system to improve the educational program that is offered in your personal testimony, as it were. It is very compelling indeed. I am very grateful to you for your statement.

Mr. JEFFORDS. I also have been glancing through the statement, and I am impressed with the activity which occurred in your district.

I don't know whether I have anything further to add other than to also thank you for appearing, Mr. Fraser.

Mr. LEHMAN. I want to thank our colleague, Mr. Fraser, for coming up. But, Don, what is the freedom of choice? What is the difference, then, of this?

Mr. FRASER. This has nothing to do with racial segregation. This has to do with education.

Mr. LEHMAN. It becomes a racial problem in our school district because it gives the middle income, the affluent white, the opportunity to move to their so-called school of their choice depending on curriculum.

It will become an issue if they set up, first, one that is traditional, one that is experimental, one that is a conventional classroom. One may be team teaching, open corridors, closed corridors, and they have gone into these different concepts.

I can give you examples, and a school board votes for, basically, on the traditional school system in conformance with the court orders, or in opposition to the court order of desegregation.

I can see the value of it, but I certainly see it as an excape hatch. Or I can imagine the white parents—where I chose to live, which was in Miami Shores. They were compared with the school down in the black area. The kids had to go to school, and I can imagine, if they opened up an alternative school, whether it be permissive or a traditional school in an all-white area, that the parents would choose the school not in the ghetto.

You know, I can understand that, and I am not arguing with you. I really see it only as one of many areas of systems, only a vehicle by which you get the freedom of choice which I think may be the final solution, but certainly, it is not in conformance with the procedures in many of the court orders.

Mr. FRASER. Our city is under court order to desegregate its schools. We are in the process. There has been no real community difficulty.

The thing about the alternative project that I described here is that it is contained within an area—I think all the schools are within 12 blocks of each other, roughly. In other words, it is not picking a different or a disparate part of the city. You take three or four elementary schools and give some choices right within that neighborhood.

Mr. LEHMAN. Some of the language that I get out of our school system is that the affirmative plan is antiblack. I am just telling you how it comes out, just like "law and order." It is a code word. I just want to be sure that in this very benevolent type of alternative schools, which I think is a great thing, that the parents should have something to say about it, but I just want to put in some kind of protection so that it wouldn't become a form or wouldn't be used as a racism tool.

I just wonder what protection efforts have really been done in Minneapolis to prevent that. What is really happening to the desegregation process according to this?

Mr. FRASER. I will say that my impression is that minority groups who are not normally resident in any large number of that part of the city have been attracted to that. They have come into that part of the city in order to take advantage of the options. It has had a modest impact. I don't want to emphasize that.

Mr. LEHMAN. Do you provide bus transportation for those who want to come to those schools, and for those who live further out? Do you provide free bus transportation to the school of their choice?

Mr. FRASER. Yes.

Mr. LEHMAN. So low-income children could go to the school of that parent's choice with bus transportation.

Mr. FRASER. Right.

Mr. LEHMAN. OK.

Mr. FRASER. Let me emphasize, Bill, that this is not a federally dictated experiment. It was generated locally. The idea is to see what educational impact it has had, giving the parents this kind of choice.

I think that any school district that wants to use this experience would have to adapt it to its own requirements and whatever restraints might be imposed by its system. I would be reluctant to say here that we won't worry about the consequences.

Mr. LEHMAN. Any kind of freedom of choice is, in effect, to a great extent, a form of resegregation because many of the white parents can have the mobility, and most of the black parents don't.

That is what I am concerned about, but perhaps if you can have this built-in bus transportation so that regardless where the child lives, they have this bus transportation, but then you get into the other kinds of problems of school activity and things, so you have to be awfully careful how you move in these directions.

I know, with my own experience in the school system in Dade County, but I hope you evaluate that not only from an educational standpoint but also evaluate the tensions within that community.

Mr. FRASER. Your point is to watch as we move citywide.

Mr. LEHMAN. Better believe it.

Mr. FRASER. We will give you a report.

Mr. LEHMAN. Of course, in the Minneapolis area, you don't have the same racial problems as would Indianapolis and some other cities where you have different kinds of tensions, different kinds of things that make up the school population.

Mr. FRASER. That is right.

Mr. BRADEMAS. Mr. Beard.

Mr. BEARD. No Comment.

Mr. BRADEMAS. Thank you very much indeed. I hope I will have a chance to come to your district and see your schools.

The Chair will declare a recess while the members of the subcommittee answer the request for a rollcall. We will resume as soon as we return.

[Brief recess.]

Mr. BRADEMAS. The subcommittee will resume.

We are very pleased to welcome the Assistant Secretary for Education in the Department of Health, Education, and Welfare, who is accompanied by Harold L. Hodgkinson, Director of the National Institute of Education, and Mr. Richard A. Hastings, Acting Deputy Assistant Secretary for Legislation, as well as John E. Corbally the chairman of the National Council on Educational Research.

Ms. Trotter, we are very pleased to welcome you to this subcommittee. We look forward to hearing from you.

Ms. TROTTER. Thank you.

STATEMENT OF HON. VIRGINIA Y. TROTTER, ASSISTANT SECRETARY FOR EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Ms. TROTTER. Mr. Chairman and members of the committee, I welcome this opportunity to discuss with the subcommittee the reauthorization of the National Institute of Education.

As you know, NIE is the research and development arm of the education division in HEW. The Institute supports many exciting projects and studies and has already had a positive impact on improving American education.

I believe strongly that the Federal Government should support research and development in education in order to provide answers to the crucial questions facing educators and policymakers.

NIE delivers the kind of research and demonstration analysis that produces viable alternatives for educational change. We must have this type of educational research and development if we are to have the most effective education system possible. Thus, NIE is essential to the Federal effort in education research and development.

When I came to Washington just over a year ago, I met with representatives of most of the major education associations. At that time, their attitude toward NIE was almost uniformly one of suspicion and distrust. Their feeling seemed to be that NIE was taking money away from their favorite concerns and using it on apparently useless research.

As head of the Education Division, I am happy to report that this attitude has changed dramatically. Education groups are now much better informed about what NIE is doing. They have come to believe that NIE's efforts are focused on critical problems and are not designed to eliminate teachers or take away the prerogatives of school administrators.

This changed attitude also stems, I believe, from the fact that the education groups now have a role in NIE's planning process. The

Institute has actively sought their opinions and concerns on areas of needed research over the past year.

Recently, a number of influential associations, including the Council of Chief State School Officers, the National School Boards Association, the National Council of State Legislators, and the American Council on Education have publicly expressed their support for the Institute's goal-oriented program.

For example, the education task force of the National Conference of State Legislators said in a recent resolution that "NIE can grow into an invaluable resource for State legislators."

The Council of Chief State School Officers passed a resolution on NIE declaring, "There must be strong support for a vigorous Federal research, development and dissemination program." And the education commission of the States, which represents the Governors State legislators, and education policymakers of 48 States, passed a resolution on July 2, urging the Congress to reauthorize NIE through 1978. Such statements are indicative of the growing support for NIE within the education community.

I would like to request permission to insert the documentation of of these statements I just made into the record.

Mr. BRADEMAS. Without objection, that statement will be included in the record.

Ms. TROTTER. Following extensive communication and consultation with constituent groups, the following priority areas were determined and will occupy the efforts of NIE during the coming year: (*a*) Basic skills, (*b*) finance, productivity, and management, (*c*) education equity, (*d*) education and work, and (*e*) dissemination. The Director will discuss these priorities further during his presentation

In this regard, we in the Education Division are pleased that the Institute now has an able and articulate new Director, Bud Hodgkinson. He is well known in the education community and meets regularly with Washington-based education groups in order to involve, them in the Institute's decisionmaking process. His efforts, I am sure will generate even wider support for NIE and will help to insure that the Institute continues to be responsive to the needs and concerns of the education community.

To conclude, a strong Federal role in education research and development was seen as vital in 1972 when NIE was first authorized.

I believe it is equally if not more important today. With leadership from the Director and policy direction from the National Council of Educational Research, the Institute will continue to prove its effectiveness. It is the focal point of the Federal effort in education research and development. On behalf to the administration, I strongly urge its reauthorization.

I would now like to ask, if it meets with your approval, Mr. Chairman, to have Dr. Hodgkinson and Dr. Corbally testify before we open the discussion for questioning.

Mr. BRADEMAS. That would be fine. Thank you very much.

Dr. Hodgkinson, we are very pleased to welcome you in your first expedition before this subcommittee.

Mr. HODGKINSON. Thank you.

STATEMENT BY HAROLD L. HODGKINSON, DIRECTOR, NATIONAL INSTITUTE OF EDUCATION

Mr. HODGKINSON. Before beginning my prepared remarks, I would like to take about 2 minutes to talk about our educational programs. Indeed, there are misconceptions. I think they could be clarified if I could have your permission to do so.

Mr. BRADEMAS. Please.

Mr. HODGKINSON. In other fields, we have well developed systems of research and development that have been going on for at least 100 years: In agriculture and medicine, for example. The science of genetics has led to the development of new kinds of hybrids.

If they were at the end of the chain, nothing would have happened. In terms of the farmer, as a result of the research and development program in the agricultural system, there are included ways of getting new devices and additional new discoveries out in the actual world.

So you need, in any kind of research and development system, both the people who do the basic research, the people who can translate that research into action and ways of making sure that that action takes place.

In medicine, you find the same thing. A finding, basically, is meaningless unless there are ways of translating it into new techniques, a new method to enable surgeons, let's say, to perform at a higher level of patient recovery.

Both in medicine and in agriculture we have very well developed systems in the country for research dissemination and product development which would prove to be quite successful.

As to to the total investment in these areas allocated for research and development activity, as far as educational research and development is concerned, we spend, in this country, $100 billion a year on education, and we spend less than one-half of 1 percent of that total on educational research and development compared to 8 to 14 percent in medicine and agriculture.

Let me just give you an idea of how research and development works. In the area of reading, let's say, in our elementary schools, a psychologist discovers a new way of coding letters in the sounds, a a new way of finding out how people make that translation between the printed figure on the page. One can imagine that as a result, new kinds of textbooks, new kinds of teacher training materials, and in-service materials for teachers are developed as a consequence of that new research finding; but then, again, we need a vehicle for new products.

We need someone, an extension agent, who understands both the research product and the particular situation in which that product may be used.

In high school, let's say, there is a new research relationship between oral and written communication. One of the major problems in many high schools today is that young people don't write as well as they used to.

New kinds of research may lead to new theories of how to write better. Then, again, you need a dissemination process whereby that can be gotten out to the schools.

So these are a couple of examples of how research and development works in education in a way, roughly, parallel to the way it may work in agriculture and medicine.

I would like to report that as far as the amount of effort given to this area that in addition to the totals in terms of money, we have a report which is entitled "The Status of Educational Research and Development in the United States" which talks at some length on who is doing educational research.

Of course, we find out, as you would expect, from people who are largely trained in psychology and education that we run about 6,000 people years of effort in research and education per year. That is a very, very small total if you think of that compared to other areas of research and development as we begin to define the basis of the universe itself.

A brief history of the lab as it is connected with our operation. In 1963, 10 centers were established by the Federal Government. In 1965, in elementary and secondary education activity, 20 regional laboratories were added to this, making a total of 30.

The U.S. Office of Education gradually reduced that number in the intervening years. At the present time, we have 16 institutions.

I should point out that only two institutions have been dropped from that total since NIE was established in 1972. With that breakdown, I would like to proceed with my formal testimony.

Mr. BRADEMAS. If I may interrupt, I am very sorry; I am going to have to recess the hearing because of the two bells. That means "roll call". We must vote.

[Brief recess.]

Mr. BRADEMAS. We will resume. Again, I am apologetic for the interruption. I am sure you understand our situation. I might make two observations: In the event that we are not able to put all the questions to you that we should like to this morning because I think we must adjourn by noon today, perhaps we can arrange, after recess, for you to come back another day for further discussion and perhaps you could, to the extent possible, try to summarize your prepared statement so that the members may be able to put questions to you.

Mr. HODGKINSON. If it is appropriate, I would like to simply insert my testimony into the record and then proceed from there with a summary. This will enable you to follow along.

[Prepared statement by Mr. Hodgkinson follows:]

PREPARED STATEMENT BY HON. HAROLD L. HODGKINSON, DIRECTOR, NATIONAL INSTITUTE OF EDUCATION

I am pleased to have the opportunity to appear before you and speak in support of H.R. 5988, a bill to reauthorize the National Institute of Education.

Congress created the National Institute of Education three years ago. The mandate for the NIE was to improve American education through research, development and dissemination activities. It now seems an appropriate time to review our progress toward meeting this mandate and to share with you our vision of future activities.

Education is one of our great national enterprises. It is of central importance to the fulfillment of our national and personal aspirations. The nation invests more than $100 billion per year in education—close to 8% of the gross national product. Yet less than one percent of that total is spent addressing problems and opportunities in education through research and development.

The educational system we have created is second to none. Three quarters of our young people finish high school and about half go on to postsecondary education. This system has been a major factor in bringing us to our present dominant position and is essential in keeping us there.

But we—the public and educators alike—want to do better and must do better. Despite our best efforts we still have many educational problems. For example:

Employers complain that many high school graduates cannot read and write well enough to function effectively on the job.

Many children are denied equal educational opportunity because the language they learned at home is not the language of instruction in the schools.

Many students leave school without knowledge, information and skills for choosing and pursuing a career.

The ability of educational institutions at all levels to provide high quality education is threatened by rising costs and declining enrollments.

NIE can contribute substantially to the alleviation of these and other present and future educational problems by support of:

Efforts to bring into immediate use the results of educational research and development, with special emphasis on the most pressing problems confronting the educational system at this time.

Policy studies providing timely data and analyses to decision makers such as state legislators, Congressmen, and administrators.

Development activities and associated research, based on thorough analysis of educational problems, designed to produce new procedures and programs ready for widespread use in two to five years.

Basic research that promises to increase substantially our knowledge of learning and education and provides the basis for new approaches to education and better ways of dealing with as yet undefined future problems.

Processes of Program Development

Before discussing the specifics of how NIE uses these methods to address problems and opportunities in education, I think it will be helpful to discuss briefly the processes we have gone through in developing our program.

Our legislative mandate was, as you know, a broad one. We were charged with seeking to improve education in the United States through:

"(A) helping to solve or to alleviate the problems of, and achieve the objectives of American education;

(B) advancing the practice of education, as an art, science, and profession;

(C) the strengthening of the scientific and technological foundations of education; and

(D) building an effective educational research and development system."

The preamble to our legislation emphasized national policy to achieve both equality and quality in education. It also contained the words: "To achieve quality will require far more dependable knowledge about the processes of learning and education than now exists or can be expected from present research and experimentation in this field". This had led us to develop a new national research and development agenda.

During NIE's first two years, the National Council on Educational Research, our policy making body, and members of the Institute staff worked to translate the Congressional mandate into specific priorities, programs and projects.

During the first three years, more than 90 percent of the Institute's funds were allocated to projects transferred from the Office of Education and the Office of Economic Opportunity. NIE found that, although the projects were of varying levels of quality, there was much that was good, and believed that they should be carried through to completion. A great deal of time was spent in getting them up to their present condition. Some needed to have research and evaluation components built in, while others were reoriented. This work made the projects of greater value and use to more school districts and school personnel. Results already in confirm that this work has paid off in tangible benefits to schools.

In developing the new agenda the Council and the staff believed that the Institute's priorities had to reflect the educational concerns and needs of the education community, the Congress, and the American people. It was also concluded that focusing on a small number of important problems was the best means of using the limited funds available. Advice and assistance came from a wide variety of outside sources. In developing its program, the Institute sought the views of all major education groups. As a result, NIE has broadened its base of support and is working in cooperation with those who must be involved if validated research results

are to be translated into widespread practice. There is broad agreement on the appropriateness and importance of the five major problem areas or priorities that NIE is addressing and expects to emphasize during the next three years: Basic Skills; Finance, Productivity and Management; Educational Equity; Education and Work; and Dissemination and Resources.

Details of our programs in these areas follow the discussion of several important themes that cut across all our programs.

Crosscutting Themes

The first theme is equality of opportunity, one to which we are strongly committed. In each of our programs, special attention is given to the needs of students from minority groups and low income families, and our Educational Equity program is devoted entirely to those needs. Further, we are committed to equal employment opportunities for our staff and to equality in the selection of outside consultants and advisors.

The second theme is broadening the base of participants in educational research and development as a means of moving in new directions and of building an effective educational research and development system. Ten years ago, a time when there was a limited national capacity for conducting educational research and development, the Congress strengthened the Federal role in educational research and development through Title IV of the Elementary and Secondary Education Act. Special institutions, the Regional Educational Laboratories and the university-based Educational R&D Centers were created by Federal initiative. Now, however, in no small part because of the stimulus of Federal funding and special efforts by NIE to interest a broad spectrum of research people in educational research and development, there is a far more substantial national capacity both public and private. Investigators at many colleges and universities, profit and non-profit organizations, state education agencies, and local school districts are now capable of and interested in undertaking research in conjunction with NIE's nationally developed agenda.

Third, we have also achieved a broad base of participation in the planning process itself. NIE's detailed research agendas are developed with the cooperation of groups of leading investigators and educational practitioners who work with the staff to define specific problems and suggest research and development responding to them. In this process, NIE seeks, to the extent possible, to achieve a comprehensive approach to the problems it is addressing, bringing to bear all relevant scientific knowledge.

A fourth theme running throughout the Institute is the developing of educational alternatives. Research does not show us the one "right" way to teach children. To the contrary, we consistently find that different students learn best in different ways. Our education system needs alternatives to serve the diverse needs of its students. NIE can help provide those alternatives. As an example, for elementary schools, NIE is developing bilingual/bicultural curricula for Spanish-speaking children and for Native Americans. Another elementary school model, Individually Guided Education, is a comprehensive system which permits teachers and administrators to devise individual programs for each child. Instruction is based upon what the student already knows, how rapidly that student learns, and other personal characteristics. Team teaching is stressed and students are grouped by achievement, rather than by age or grade. For the high schools, NIE developed a career-oriented program that gives students a variety of work experiences in the community. This program, which I will describe in greater detail later, is proving to be an attractive alternative to the traditional academic or business curricula. At the postsecondary level, the University of Mid-America project uses television, newspapers, and special media centers to teach college-level courses to adults, many of whom do not have access to a conventional university. These are but a few examples of the NIE-developed alternatives that can help our schools better meet the diverse needs of their students. Our Dissemination program is providing schools with information and assistance in examining the available alternatives and deciding which are best for their use.

These four themes, equality of educational opportunity, broadening the base of participants in educational research and development, national participation in the creation of research agendas, and the provision of needed alternatives, give a coherence and integrity to the overall mission of the agency. Their presence strongly influenced the selection of the five priorities and continues to influence program decisions within the priority areas.

Now I will turn to a description of the work actually going on in the five priority areas of the Institute. Although the efforts in each area are directed toward alleviating a major educational problem, you will see that there is a range of activities addressing each problem. These activities have been carefully chosen from a much wider set of possibly important approaches and include descriptions of the problem, experimental research, development of products, synthesis of research findings and dissemination. Our sense is that efforts of this breadth are critical to our meeting both the pressing short-range needs of the educational community and developing and consolidating a knowledge base for informed action in the future. The first priority area I will discuss is Basic Skills.

BASIC SKILLS

Thousands of students leave school each year without the basic reading and mathematics skills required for many jobs. The Basic Skills program is designed to insure that all children master the skills needed to function effectively in our society. The primary emphasis is on reading, with a secondary emphasis on mathematics. For two years practitioners and scientists have been helping to plan our work on reading.

In the past the Federal government has sponsored a great deal of research and development on reading in the early grades. This work has already led to improved reading, particularly in the beginning stages of sounding out words. Over the next three years NIE will systematically assemble and analyze the existing knowledge about early reading to determine by 1978 whether substantial improvement would be made through a new generation of curriculum programs.

But skilled reading is more than simply being able to turn print into speech. It involves an understanding of the message; it requires that the reader be able to cull the information he needs in everyday affairs from various materials, such as technical manuals, government forms, newspapers and magazines. These problems of comprehension have, in the past, received much less attention than the problems specific to early reading. Therefore, NIE is now focusing its research efforts on comprehension. For example, we are concerned with how comprehension is influenced by characteristics of the text, such as vocabulary and syntax, and by characteristics of the reader, such as attention, motivation and intent. We will also investigate how comprehension is affected by different social and cultural contexts. The beneficiaries of these efforts will no longer be concentrated in the early grades, but will include older children and young adults who cannot meet the reading demands with which they are faced.

Research on learning is not sufficient. The Basic Skills group must also deal with how to teach. Some research suggests that training teachers in general skills which they might use in any subject is not productive. Certain skills are related to effective teaching in some subjects, but not in others. For example, in a recent NIE study, only one teacher out of ninety-seven was identified as highly effective in both reading and mathematics. An NIE-funded project directed by the California Commission on Teacher Preparation and Licensing is currently addressing this issue. The purpose of this sutdy is to identify what teachers do that makes a difference in how well their students read and do mathematics. This study, to be completed in two years, will give policymakers in California and many other states information needed to revise their teacher certification requirements and teacher training programs.

The Institute is also funding efforts to individualize instruction. I have already described one such program, known as Individually Guided Education. More than 2,000 elementary schools have adopted this appraoch; still more use the reading materials from this program. We estimate that by 1978 this program will be disseminated widely enough to be recognized as a truly alternative form of elementary schooling.

In addition to teaching and learning, the Basic Skills program has to be concerned with questions of evaluation and measurement. How do we know whether students are achieving the desired level of competence? How do we know whether the products of educational research and development are effective? Dissatisfaction with current methods of answering these questions is widespread and for the most part justified. Test bias is one source of dissatisfaction. The courts and legislatures are being asked to prevent tests from being used in a way which discriminates against minority or low-income children. But as yet we do not know how to prevent inadvertent misuse and at the same time provide for an adequate assessment of every student's progress. NIE is working to develop more accurate and fairer measures of student achievement and program effectiveness.

NIE also is supporting development of new research and evaluation methods and is attempting to insure that users have access to the best available ones. For example, one NIE project is producing kits which enable practitioners to make a wise choice of tests and do their own evaluations.

FINANCE, PRODUCTIVITY, AND MANAGEMENT

America's school administrators and local school board members are caught in a crunch of rising costs, declining enrollments, and constant demands for better performance. By developing and testing new technologies and alternative organizational structures, the Institute can help make the educational system better able to cope with these pressures.

"Competency-based" education is one idea being explored by many high schools and colleges. In such a program, a student graduates when he or she has mastered certain skills or knowledge, not just upon completing a predetermined number of courses.

The State of Oregon, for example, now requires its high school graduates to master certain real-life skills, such as demonstrating first-aid techniques, or answering a job advertisement. NIE is actively supporting such efforts to develop responsible goals and curricula. By 1978, the Institute should be able to provide educators and policymakers with extensive information on the impact and practicality of a state-wide system of competency-based education.

NIE is also aiding local schools and school systems to change their organizational styles and structures in ways that will help them to improve their performance. Initiatives include developing better planning and accountability systems, finding more effective means of broadening participation in decision-making, developing strategies that schools can use to locate and make effective use of outside help and helping schools to do a better job of setting local priorities and implementing decisions. Pilot studies addressing these issues are currently being carried out in urban and rural schools serving over 50,000 students, in locations ranging from Harlem and Watts to the Four Corners area of southeast Utah. Three years from now we will have assisted hundreds of rural communities trying to redefine their educational programs to fit modern rural needs; we will have helped existing teacher centers to do a better job of meeting the professional development needs of thousands of teachers; and we will have provided information and technical assistance to many urban school principals that will help them use modern management techniques to reduce conflict and improve school performance and productivity.

Two other efforts are also developing organizational alternatives for local schools. In a project in Southwest Minneapolis, students and their parents are offered a choice of four schools with distinctly different educational programs. Fourteen schools in San Jose, California offer more than 50 alternative programs, based on interests of teachers, parents and students. Alternatives and innovations such as these hold great promise for revitalizing the organization of our schools.

At the State level, school finance reform is a central concern. A number of State court decisions have concluded that current school finance practices are inequitable. Since 1970, 14 states have successfully revamped their school finance system. NIE recently awarded a contract to the National Conference of State Legislators to study these 14 "success stories" and write a handbook for legislators who are now confronting this complex and controversial issue in other states. In the next three years, NIE will provide technical assistance to States to develop practical solutions to the problems of equalizing school finance.

Another area of interest related to productivity and efficiency is the use of technology. A wealth of new technologies, including television, audio cassettes, videotapes, and computerized instruction, is now being used in schools through out the country. The Institute is aiding educators by analyzing the cost-efficiency and educational effectiveness of these new technologies. One large-scale project I mentioned earlier—the University of Mid-America—supported by NIE and the Ford Foundation, uses a coordinated system of television, newspapers, and special media centers to teach college-level courses in Nebraska, Iowa, Missouri, and Kansas. This project is demonstrating the exciting potential of technology to reach adults who normally would not have access to higher education. By 1978, we will be able to inform boards of higher education of the cost and impact of this open learning system.

EDUCATIONAL EQUALITY

NIE's authorizing legislation states that it is "the policy of the United States to provide every person an equal opportunity to receive an education of high quality regardless of race, color, religion, sex, national origin, or social class." The law further states that while American education has pursued this objective, it has not yet attained the goal of equal educational opportunity.

As I have indicated, concern for equal opportunity is reflected throughout the Institute. For example, the Basic Skills program is concerned with issues of test bias and making sure that all children learn to read. However, to meet the special needs of certain population groups, the Institute organized a special program—Educational Equity—to help schools and colleges find ways to provide more students with equal opportunities for a high quality education.

A major thrust of the Equity program is in bilingual education. The U.S. Civil Rights Commission recently reported that hundreds of thousands of children in America's schools do not speak English as a native language and are being deprived of equal educational opportunities because they do not understand the language of instruction. In Texas, for example, one child in five speaks Spanish as a native language. Texas has officially adopted a bilingual-bicultural curriculum developed with NIE funds. Every school district in the State with more than 20 students of "limited English speaking ability" can now order these Spanish-English materials free of charge. In addition, these NIE-funded bilingual educational materials are being used in 15 other States and in the cities of Chicago and New York. The Institute's Equity program is also funding the development and dissemination of bilingual curricula for other language groups. These alternative curricula will help schools fulfill their responsibilities to provide equal educational opportunities for Spanish-speaking students, Native Americans and other minorities.

Sex role stereotyping has unfairly limited women in their educational and career planning. The result for many women has been low-paying, dead-end jobs. NIE believes that research can provide a better understanding of how sex roles are taught and how these stereotypes can be eliminated through counseling and improved teaching.

The Educational Equity program is also carrying out a number of important policy studies. Desegregation has been for more than 20 years a controversial issue in American education. Yet little is known about the actual classroom realities in desegregated settings. The Institute is carrying out studies to learn specific means of assisting teachers, principals and school boards who are seeking to achieve high quality integrated education.

Another major policy study, undertaken at the request of Congress, will analyze the nation's $12 billion investment in compensatory education and explore alternative ways to distribute and use compensatory funds. This study will be delivered to the Congress in two years and will provide needed data and analysis for reviewing the Title I program. A final example, also in response to Congressional initiative, is a study of causes of violence in the nation's schools and ways of preventing it.

In addition to demonstrating NIE's responsiveness to Congressional concerns, these policy studies, which will completed by 1978, will provide vital information to state legislators, jurists, school administrators, teachers, and parents confronting these controversial issues.

EDUCATION AND WORK

Relating education to work has long been a concern of the Congress, the business community, parents, and students. Last summer President Ford, in a speech at Ohio State University, expressed his interest in this area. National Commissions and private studies have concluded that students are isolated from the world of work and are not aware of the responsibilities, opportunities, and challenges of adult life. As a result, millions of students leave school each year—both as dropouts and graduates—with little idea of what career they would like to pursue, what options are open to them, and with few of the skills needed to obtain lasting employment.

In response to this problem, the Institute is supporting a program called Experience-Based Career Education (EBCE) which can do much to change the education and work situation. During the past three years EBCE projects have been in operation in high schools in four cities—Philadelphia, Pa., Charleston, W. Va., Oakland, California, and Tigard, Ore. Students participate in a career-

oriented program that includes work in basic skills—English and mathematics—and work in the community. In one model, career development has two parts—exploration and specialization. In the exploration phase, the student selects an area of interest and acquires a variety of experience in that area. For example, if a student selects "law and justice" for a 12-week period he or she will work one or two days a week in the police station, in the district attorney's office, and at the city prison. For the next 12 weeks, the student selects another exploration area such as health and works in a community health center or in a hospital job. At the end of the period, the student may have developed a special interest in becoming a medical technician. For the next 12 weeks, the student would work with a medical technician. One such student has become the youngest certified emergency medical technician in the country.

A joint NIE–OE dissemination panel has reviewed EBCE in the four schools and judged it an exemplary project worthy of support. In addition to NIE support the Office of Education's Division of Occupational and Adult Education expects to provide $6 million for vocational educators in schools around the country to adopt or adapt EBCE for each of the next three years. EBCE-like programs will be started in schools in at least 42 states. By 1978, we expect EBCE to be a viable alternativefor any high school in the nation interested in a career-oriented alternative for its students.

The Education and Work Program is also supporting research in guidance, counseling and career awareness. For example, an NIE-developed occupational exploration curriculum permits 7th and 8th graders to experience a number of occupations and work environments as part of their regular school program. An inexpensive, practical system to help schools improve their guidance, counseling, and placement programs will be tested in 20 states, and by 1978, will be available nationwide. In fiscal year 1976, the Institute will fund the production of a series of 15-minute television programs to give young children a better understanding of what different jobs are really like. Coordinated with teacher and parent activity guides, this kind of career awareness at the elementary school level is important preparation for a student's career exploration and specialization during the junior and senior high school years.

In addition, adults increasingly need educational services as they face mid-career change or job obsolescence. Other research in the Education and Work program will develop new ways of certifying occupational skills and of increasing adult access to occupational education.

DISSEMINATION

The fifth NIE priority is dissemination—making sure that teachers and administrators have access to the best and most useful results of educational research and development. NIE is employing a variety of strategies to make research information available and to provide assistance in the adoption of tested innovations.

For example, past experience has shown that "people-to-people" contact is important in disseminating information and implementing new programs. Following the example of the successful agricultural extension agents, NIE is supporting a number of states to employ specialists who will work directly with local schools and supply needed information and advice in their selection of new programs. Other funds will help states and districts implement new research products or practices. Often a local district cannot use an innovation such as individualized instruction because it lacks money or expertise. NIE support, in the form of funds and expert assistance, will make it possible for local schools to make improvements in their programs based on what has been created through research and development.

To help get information out to the field, NIE is producing a catalogue which will let local and state educators know what information and products are available and adaptable to local needs. The Institute also publishes reports that summarize new developments or trends in education. One recent report discusses how many of the nation's community colleges are now serving the elderly. It provides a step-by-step guide for community college administrators interested in starting a program for senior citizens. A second report, intended for teachers, summarizes recent research on the cognitive and social development of children. The report gives examples of actual classroom behavior with explanations based on the research, and helps teachers respond to the behavior. These reports will be widely distributed free of charge to educators concerned with these issues.

The Dissemination program will also continue to support and improve the Education Resources Information Center (ERIC)—a network of 16 national clearinghouses that collect, categorize, and make available educational research reports and articles. The ERIC system is now being used more than 10 million times annually by teachers, administrators and researchers.

The Institute has demonstrated its commitment to dissemination by tripling its funding level in fiscal year 1976. By 1978, with support from NIE, at least half the States will have well-developed dissemination programs to provide local educators with the latest results of educational research. In addition, over the next three years, every school district in the nation will receive an updated catalogue of NIE-sponsored products and copies of clearly-written reports that summarize research on topical issues of interest.

Conclusion

I have discussed the general need for educational research and development, the processes we have used to develop our programs, some themes cutting across all the programs, and the current and planned programs themselves. I will turn now to the specifics of the bill before you and end with a few remarks about my aspirations for the Institute.

The bill before the Committee, H.R. 5988, would authorize the Institute for another three years. It would amend our original 1972 statute to specify the issues which the Institute should address over this period, consistent with the program I have just described. We would like, in this way, to achieve a mutual understanding with the Congress of the Institute's mission. In addition, the bill would:

Make certain perfecting amendments concerning the National Council on Educational Research relating to requirements for a quorum and expiration of terms in office.

Authorize establishment of research fellowships to facilitate scholars coming to the Institute for short periods for individual research, to work with Institute staff or to receive further training. This authority would parallel that of the National Institutes of Health.

Authorize appropriations for three additional fiscal years.

These changes and extensions would provide the necessary statutory basis for the Federal leadership role in educational research and development over the next three years. I would like in my concluding comments to present briefly the vision of the National Institute of Education toward which I believe we are all striving. That Institute will:

Be a focal point for achieving national consensus on the important current and emerging national probems of education and for designing and carrying out appropriate research and development projects to deal with them.

Provide increasingly strong foundations of knowledge about learning and education upon which teachers, adminstrators, policy-makers, parents, and students can rely and make this knowledge available in forms which can be utilized by various interested parties.

Give leadership to national efforts to design new ways of providing education, taking advantage of opportunities arising from new knowledge, new ideas, new technological advances, and new interests of society and of students.

Seek to anticipate future educational problems and carry out pilot programs that can form the basis for well designed responses to the problems.

These functions are all ones that require a *national* Institute that can utilize efficiently the intellectual and material resources of the nation and achieve the necessary consensus. They require also a *continuing* Institute which can give sustained attention to educational problems, understand their interconnections, and accumulate experienc, expertise, and basic understanding in addressing them through research and development. I believe we have made a good start toward creating such a National Institute of Education. I strongly recommend that the Committee act favorably on our request for reauthorization of the Institute so that these efforts can continue.

Mr. HODGKINSON. I am here to speak in support of H.R. 5988, the bill to reauthorize the National Institute of Education. Since Congress created the Institute 3 years ago, we have worked hard to keep your trust. We know that the educational system in this country is good, but there is evidence that we can do much better. We plan to do so by

getting research results into immediate use, especially in the most crucial problem areas, providing policy studies for decisionmakers in the Congress and in State and local governments, development activities designed to produce new procedures and programs over 3 to 5 years, and basic research to get to the heart of the ways in which learning takes place.

You were given a chart, I believe, which indicates the number of constituencies with which we work, and this is some indication, on the basis of my earlier comments, on how NIE plans to operate.

Given our broad congressional mandate, we have begun to develop through planning, consultation, and the leadership of our National Council on Educational Research, a research and development agenda for the Nation. We are moving ahead on this agenda, through our contacts with local and State educational authorities, attempts to determine the needs of users, finding out what the best ways are of getting research results out.

Although we have been hampered in our first 3 years by the fact that 90 percent of the institute's funds were allocated to projects transferred from the Office of Education and the Office of Economic Opportunity, we have worked with these programs carefully and most have been successful.

We also worked very hard to broaden our base of support from a variety of constituencies and seem to be achieving some success around our five major areas of effort during our next 5 years: Basic Skills, Finance, Productivity and Management, Educational Equity, Education, and Work and Dissemination.

In addition, there are four crosscutting themes that are a part of every program. The first of these is equality of opportunity which we try to observe both outside and within the institute.

(Thirty-eight percent of our employees are of minority background. A breakdown shows that 53 percent of our employees are women, and two of our program directors are women.)

The second theme has to do with broadening the base of those who can do high-quality research and development. In addition to the research and development labs and centers, we have found many other groups, from local school systems to State educational agencies, interested and competent to undertake research and development activities.

Although our resources are limited, we are trying to widen this base.

Third, we are attempting to develop broad participation in the planning of our program with the cooperation of leading educational practitioners in the field to representatives of over 30 Washington-based educational associations.

A fourth theme concerns the development of educational alternatives. We know that there is no one best way for all children in all schools to learn all subjects. Thus, we are providing a number of alternatives to conventional practice, and we are checking them out carefully to determine the results. The individually guided education program and career education programs have been shown to be successful, but these are only two such programs we have developed. These four themes: equality of educational opportunity; broadening the base of participation in educational research and development: broadening national participation of determining research agenda,

and the development of alternatives form a framework for the five priority areas of the institute.

Let me spend the rest of my time talking about each of the five priorities, keeping in mind that each one of these indicate what we have done and where we hope we will be by 1978.

The first area is basic skills. We concentrated on reading and math in this area, and have discovered that much improvement has occurred in sounding out words in the first three grades in reading.

But many students who achieve these goals have many problems in comprehension in grades four through six. We will concentrate on these problems to insure that our citizens can comprehend written language.

We are also interested in research in teaching basic skills, expecially the problems of teacher preparation and licensing. In this regard, we are working with California and other States in this area. We are also working on individualizing instruction.

More than 2,000 schools are using IGE, and the number grows constantly. The measurement of basic skills, from test bias to new types of measurement of student learning is a continual concern of ours. We are also helping local schools to develop their competence in evaluation.

"Finance, productivity, and management," program is designed to explore ways of getting more educational results with the same dollars.

Competency-based program: There is the argument that a student should be judged by what he or she knows and can do, not how long they have been sitting in the classroom. The State of Oregon is very active in that area. We are assisting them whenever necessary.

We are also working with local school patterns of organizations in a variety of ways. Another set of projects provides organization alternatives such as the southeast Minneapolis project that Mr. Fraser described a few minutes ago, and in San Jose, Calif., 14 schools offer more than 50 alternative programs.

We are also working on finance reform at the State level, especially the 14 States that have revamped their system to try to take into account some recent court decisions on the financing of schools.

This program also places heavy emphasis on technology from satellites to the University of Mid-America, which coordinates a range of media across four midwestern States.

By 1978 we should know whether such a system can work, and how well.

The educational equity goals of this program are reflected throughout the institute, but we have some specific programs in this area. Bilingual education is very important. There are hundreds of thousands of American youths who do not hear English spoken at home. We have worked on curriculum materials in this area, currently used by Texas and 15 other States; plus the major cities of Chicago and New York.

We are doing research on sex role stereotyping that has resulted in educational inequity for many women. We are also doing studies of desegregation, compensatory education—as mandated by Congress—and ways to reduce crime in our schools—also a congressional mandated study.

These policy decisions and studies completed in 1978 should form an important basis for congressional and State decisionmaking.

The fourth major area is education and work. Relating education and work has interested Americans since Thomas Jefferson first wrote his plan for education in Virginia.

Last summer, President Ford spoke at the Ohio State University regarding the topic. The institute is supporting a program called Experience-Based Career Education which is being used in high schools in Philadelphia, Pa., Charleston, W. Va., Oakland, Calif., and Tigard, Oreg. Students study basic skills and at the same time, work in the community to try out new skills in a variety of occupational settings. Programs like "ELCE" will be started in 42 States in the next 3 years. The education and work program is also supporting research in guidance, counseling, and career awareness. This program allows seventh and eighth graders to explore a variety of occupations, a new simple program for improved school guidance, counseling and placement will be tested in 20 States and will be available nationwide by 1978 plus a TV series to show the younger children the world of work as it really is.

Midcareer adults are also a focus of this career guidance program.

The final area that we concentrate on is the area of dissemination. We have learned that people-to-people contact seems to get the best results in dissemination and implementing new programs. A recent random study tends to support the conclusion.

We are, therefore, working with a number of States to employ specialists who work with schools translating research findings and new products into the needs of local teachers and administrators.

A number of publications are user oriented; I think especially of the teacher-centered education publication that we have issued in recent weeks.

In addition, we support the ERIC network of 16 clearing houses that are used more than 10 million times annually. By 1978, half the States should have well-developed dissemination programs.

Also, local schools will receive a number of user-oriented publications that speak directly to user needs.

In conclusion, the bill before the committee, H.R. 5988 reauthorizes the agency for three specific years. I just described some alternatives and some of the patterns of the NIE. In addition, the bill would make certain perfecting amendments concerning the National Council on Educational Research relating to requirements for a quorum and expiration of terms of office and authorize a short term.

The National Institute of Education should (1) become a national focus for setting a national research and development agenda for education. (2) Provide a knowledge basis useful to all decisionmakers in education, from Congress to the students. (3) Enable new knowledge, ideas, and proven practices to be quickly available to those who are interested and need them and (4), by looking ahead, try to get research going on new problems before they become too severe. I would like to emphasize No. 4 as being a very important area.

These will require an Institute that is national in scope and mission and continuing in its sustained attack on educational problems. We have, in NIE, the talent, energy, organization and the resources to do this vital work. We could have an impact on the learning achievement of every student in the country. With your active sup-

port, we can promise concrete results by 1978 leading toward that goal.

Thank you for allowing me to speak with you today, and to recommend the reauthorization of NIE so that we can move ahead in this important work. Thank you.

Mr. BRADEMAS. We are very grateful indeed for your thoughtfully prepared major statement and your excellent summary.

I am going to make a decision that is distressing to me, but it seems to me to be only fair. Your statement, as the Director of the National Institute of Education, together with that of Virginia Trotter and John Corbally and William Turnbull, seem to me to be of such great importance that it is really not fair to you to have to be interrupted, given that we are in this unusual situation with the House in session, nor is it fair to the members of the subcommittee who may wish to put questions to you.

For that reason, though, it pains me that I have to do so, I am going to suggest that we adjourn the hearing today. I am sorry to have to put Mr. Corbally and Mr. Turnbull out. I hope they will forgive me. We are not going to be able to put questions to you in a thoughtful manner. I hope, therefore, it would be agreeable to come back next month, in September, that is, and have a renewed hearing when we won't have so much competition from the floor. Would that be agreeable?

Mr. CORBALLY. I simply ask that the statement go into today's record.

Mr. BRADEMAS. Yes. We would be very glad to do whatever you and Mr. Turnbull would like in that respect. We are very grateful to all of you for having come. We shall adjourn the hearings today.

[Statement by Mr. John E. Corbally follows:]

PREPARED STATEMENT OF HON. JOHN E. CORBALLY, CHAIRMAN, NATIONAL COUNCIL ON EDUCATIONAL RESEARCH, NATIONAL INSTITUTE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. Chairman and members of the Committee, I am pleased to be here today as Chairman of the National Council on Educational Research to testify on behalf of reauthorization of the National Institute of Education. We greatly appreciate the leadership of this Committee in the establishment of the Institute and in setting the nation's educational priorities. We will continue our efforts to respond effectively to your guidance.

The 15-member, Presidentially-appointed Council was established by NIE's 1972 authorizing statute to make general policies for, and to review the conduct of, the Institute. The Council was first appointed and first met in July, 1973. Since that time, we have met almost monthly to develop a policy framework and to provide program direction for the Institute. This work has been undertaken increasingly with the advice and active support of education researchers, practitioners, and policy-makers. We have worked through a period of appropriations levels which have severely disrupted the Institute's planning and delayed initiation of a coherent problem-solving program.

The appropriations situation has now stabilized, albeit at a level far lower than had been contemplated at the outset of our work. NIE has workable plans to focus its resources on critical education problems where there are clear opportunities for productive research and development. Dissemination and implementation programs to bring the results of education R&D to the schools are receiving priority attention. The Institute is now prepared to enhance the contribution that education R&D is making and can make in the future to the improvement of education for all citizens.

Major problems confronting American education have been uppermost in the minds of Council members. The nation is experiencing fundamental changes in social and economic conditions. Schools are challenged to keep pace with rising expectations and new demands. The goal of equality of educational opportunity for high quality education remains unrealized and must be pursued vigorously.

Our schools are striving to meet these challenges at a time when great demands are being made upon a relatively static level of resources, both professional and financial. They seek assistance in defining and understanding diverse needs and in matching education programs to those needs. School administrators, teachers, and concerned citizens throughout the nation express the need for improved tools and ideas with which to work. The generation of those ideas and the design of those tools is, in large measure, the mission of education research and development. R&D offers options and assistance to those who are working to improve education programs throughout this nation.

Education requires a base of fundamental research as well as active development and dissemination activities. These must be conducted on a sustained basis. Ultimately, the challenges facing our schools must be resolved at the state and local levels. Many of these challenges, however, involve underlying national issues. Only by marshalling the nation's resources can we expect to tackle these issues effectively. There is, therefore, an appropriate Federal responsibility for the support and conduct of education research and development activities.

This need for Federal leadership and support of education R&D, and the need for an Institute to focus that effort, are as urgent today as they were when Congress created NIE in 1972. The need for adequate funding of the Institute is as vital today as it was in 1972. A working partnership of education practitioners and researchers, of research organizations and school systems, is as needed today as it was in 1972.

The Council believes that the NIE is "coming of age". It has an able new Director and its management is being stabilized. It is working with the educational community which contributes continually to the planning and review of its programs. Knowledge and tangible products produced under NIE programs are being made available to schools in increasing numbers.

Therefore, the National Council on Educational Research urges the Congress to authorize the continuation of the National Institute of Education. Reauthorization should provide a broad charter and the necessary resources for the conduct of basic research and the improvement of educational practice throughout the nation.

We do urge some revisions of the proposed reauthorization legislation:

(1) The authorization should be without a termination date because the challenges to education and the legitimacy of the Federal role in helping to meet those challenges will not terminate. Biannual oversight hearings and the annual appropriations reviews will give the Institute the benefit of Congressional guidance.

(2) Funds should be authorized at levels higher than proposed; the present bill provides less than half of the original authorization and even falls short of the appropriation levels actually received. Given the current level of funding, we estimate the dollar resources needed for NIE will increase by at least $30 million annually, reaching $140 million in 1978. Even this will only restore the 1972 level of funding for NIE, including programs transferred to the Institute two or three years ago. The law should provide for such appropriations as may be warranted for later years.

In concluding, Mr. Chairman, I would remind the Committee that the Council has selected five problem-oriented priorities upon which to focus most of the Institute's resources during fiscal year 1976. We are using these priorities as a framework to plan the Institute's program for the next fiscal year. As resources increase, and as opportunities for further work in these and other areas develop, the Council and the Director may establish new priorities in accord with national goals established by the Congress and in concert with the needs of the research and practitioner communities. The National Council on Educational Research looks forward to working with all concerned parties, especially the Congress, in strengthening NIE and sustaining the necessary Federal leadership and support for educational research and development.

[Whereupon, at 11:08 a.m. the hearing was adjourned.]

NATIONAL INSTITUTE OF EDUCATION

MONDAY, NOVEMBER 3, 1975

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SELECT EDUCATION OF THE
COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 9:30 a.m., pursuant to notice, in room 2175, Rayburn House Office Building, the Hon. John Brademas (chairman of the subcommittee) presiding.

Members present: Representatives Brademas, Cornell, Hall, Quie, and Pressler.

Staff present: Jack G. Duncan, counsel; Patricia Watts, administrative assistant; Mike Cohan, staff assistant; and Christopher Cross, senior education consultant.

Mr. BRADEMAS. The Subcommittee on Select Education of the House Committee on Education and Labor will come to order for the purpose of the hearing of testimony on H.R. 5988, a bill to extend the authorizations of legislation for the National Institute of Education.

Authority for the establishment of the NIE is contained in sections 401 and 405 of the General Education Provisions Act as amended by the education amendments of 1972.

These sections create, within the Department of Health, Education, and Welfare, an education division headed by the Assistant Secretary of the Department for Education. The National Institute of Education and the Office of Education, both with their own policymaking authority, compose the education division.

The Chair recalls one of the reasons in his view that the Institute received such strong bipartisan support on this Subcommittee and in Congress generally was an apprehension on the part of Members of Congress that we had not benefitted—by we I mean the Nation more broadly—adequately from earlier Federal investments in educational research.

Moreover those of us who drafted the law concluded if we were to improve the quality of education in this country we required an effective, visable, coordinated and comprehensive education research effort.

The National Institute of Education was therefore charged with the task of supporting and directing educational research at all levels, from the earliest years into later life, in both traditional and nontraditional settings.

In light of the substantial work which members of this subcommittee have put into the creation of the National Institute of Education we have a deep interest in learning of the accomplishments of the Institute since its inception, what steps the Institute has made toward

improving education in this country and what plans the Institute has for making a genuinely comprehensive and effective Federal education research initiative.

We are pleased to have with us today Roger Levien, former director of the Washington domestic programs of the Rand Corporation. Dr. Levien was responsible for the first study and preliminary plan for the National Institute of Education.

Subsequently we will hear from Dr. Thomas Glennan, former Director of the National Institute of Education and later this morning we shall be pleased to have testifying before us three outstanding educational researchers, William Turnbull, president of Educational Testing Service, George Weathersby, professor at the Harvard Graduate School of Education and James Gallagher, director of the Frank Porter Child Development Center the University of North Carolina at Chapel Hill.

Dr. Levien, let me say how pleased we are to have you and Dr. Glennan with us today and particularly, Dr. Levien, we are grateful, knowing that you were only yesterday in Austria, that you were able to fit in an appearance before this subcommittee this morning. I appreciate your coming such a long distance.

I might say that I am especially pleased that we have on the first day of hearings present Congressman Quie, who is the ranking minority member on the full Committee on Education and Labor, and who was one of the major shapers of the National Institute of Education in this committee, and two new members of this subcommittee, both professional educators, the gentleman from Wisconsin, Mr. Cornell, and the gentleman from Illinois, Mr. Hall.

So that I am confident that we can have a most constructive discussion.

Dr. Levien, we are pleased to open our testimony with you.

STATEMENT OF ROGER LEVIEN, ACTING DIRECTOR, INTERNATIONAL INSTITUTE FOR APPLIED SYSTEMS ANALYSIS, LAXENBURG, AUSTRIA, FORMER DIRECTOR OF WASHINGTON DOMESTIC PROGRAMS OF THE RAND CORP.

Mr. LEVIEN. Mr. Chairman, members of the committee, ladies and gentlemen, thank you very much.

Let me say I am currently acting director of the International Institute for Applied Systems Analysis in Laxenburg, Austria, and as you said, former director of The Washington domestic programs of the Rand Corp. in Washington, but my testimony today is simply in my personal capacity, and I am not representing IIASA or the Rand Corp.

There are two reasons I am interested in testifying today. First, I participated from March, 1970 until February 1971, in the preliminary planning for the proposed institute. At that time, and since then after the creation of the institute although I had no further involvement with decisions concerning its organizational program, I did lead a study funded by the Carnegie Corporation of New York whose purpose it was to develop a possible agenda for education R. & D. It is on the basis of those two experiences, preliminary planning for NIE and preparation of an agenda for education R. & D., that I would like to rest my testimony today.

I assume the committee has three questions. One, should the authorization for NIE be extended? If so, should any changes be made in the legislation? And, further, what level of funding should be authorized?

I should like briefly to address each one.

First, should the authorization be extended? I believe the arguments that justified the establishment of NIE continue to be valid today: an industry such as education that spends around $100 billion yearly should invest a portion of its funds in a disciplined process of innovation and change. Because of the highly decentralized nature of the education system, the Federal Government must be the vehicle for this broadly applicable investment.

What is important, however, is that the Federal Government, both executive and legislative branches, and the educational system have reasonable expectations of what education R. & D. can accomplish in the near term.

It would be better it seems to me, to accept the necessarily limited powers of a very young field to deal with the truly complex problems of education and to establish its basis accordingly, than to ask for the infeasible and blame incompetence or malfeasance when it is not produced. What education R. & D. needs is a reasonably stable base of support, with provision for modest growth if warranted, over a long period of time.

Is NIE the proper instrument for Federal support of Federal education R. & D.? In 1970 we saw NIE as a way of raising education R. & D. to an appropriate scientific and governmental status and of providing a focus for educational research and experimentation in the United States. Creation of NIE was both a reaction to the difficulties encountered in planning and conducting high-quality R. & D. within the Office of Education and an expression of the hope that education might attract to its service the kind of R. & D. community that had been mobilized by the National Institutes of Health.

It is fair to say that NIE has not yet achieved those goals. We must bear in mind that an essential ingredient in development of an effective R. & D. institution is time. It would be a mistake, I believe, to make major changes in the Federal organization for education R. & D. on the basis of the short experience with NIE. Now that the trauma of birth is subsiding it needs a period of reasonable, sustained support and enlightened guidance in which to mature and reach the stage of productive contribution to education that all of us seek.

Your second question: Should any changes be made in the authorization? My absence from Washington for the past year makes it difficult for me to answer that question specifically. Instead let me emphasize two aspects of NIE which I feel must be preserved and enhanced in any modifications of the legislation.

The first provision is to attract and retain high quality staff, and the second is to facilitate the formation of strong linkages to the education system. The need for high quality staff was one of the underlying motivations for creation of NIE and, explicity, for the inclusion of an exemption from civil service requirements in the initial legislation.

The business of NIE is the allocation of Federal funds in support of education R. & D. This can only be done effectively if, during planning and implementation, the decisions are made by persons who under-

stand and are competent to make good judgments about the various fields of education R. & D.

To obtain this understanding and judgment it is essential to have both training and experience in the appropriate fields. Usually there are on y a small number of adequately qualified persons, and fewer still who are willing to leave active R. & D. for Government. To get good value for its investment, the Federal Government. must be able to attract these people, and the usual civil service procedures are not sufficient.

Complementary to the need to assure high quality staff is the need to guarantee a high degree of relevance of R. & D. to education through establishment and maintenance of many linkages to the education system. I have two specific suggestions.

First, the linkage between the NIE-funded research community and the State and local education agencies can be strengthened if the education agencies themselves have R. & D. activities, in the form both of small internal R. & D. offices working on local problems and of moneys available to procure R. & D. assistance. The experience in all other fields of R. & D. is that R. & D. results enter organizations most efficiently through an internal link to the R. & D. community. The Congress might consider a program of matching grants to encourage the formation of such R. & D. offices and programs in State and local.

Second, the perceived relevance of the NIE program to the concerns of the education systems can be increased if at each level in the NIE, contacts are established and maintained with groups of persons from education system—including its clientele—having a direct awareness of the problem being studies. This means that the definition of the problem and approaches to its solution should be accomplished in continuing contact with representatives of the education system. Many mechanisms for this collaboration are possible—advisory groups, joint study teams, consultants, field surveys. It is more important to establish the principle than to specify the means.

The third question might be: What level of funding should be authorized.

At the time of the NIE's creation we foresaw, probably naively, a growth of NIE's budget in response to the obviously great needs of education, constrained primarily by the maximum sustainable rate of increase of a Federal scientific organization, assumed to be about 25 percent per year. Our aspirations now must be brought into closer conformance with reality.

I believe the budget decision must be an incremental one rooted in specifics. That is, I don't think there is any absolutely right level of support for education R. & D. The place to begin rather is with the current budget.

The question then is: Should the budget be increased or decreased, and by how much? To answer this, it is necessary to look at the specifics. How much has been accomplished? What is the likely value of what is proposed? What are the alternative users of the funds available? If increases are proposed, then the ability of NIE and of the R. & D. system with which it works to effectively employ the increment must be considered. It is doubtful whether yearly increases greater than 25 percent, if those were possible, can be satisfactorily expended and employed, although in particular types of programs it might be possible.

What this means for the authorization process then is that the total budget authorization should be the sum of budgets obtained by increasing the current budget by 25 percent in the first year and adding an additional 25 percent in each successive year.

I am saying this is the upper bound on what the NIE could usefully expend, but that within this upper bound the actual budget would fluctuate each year as a result of the detailed appropriations process.

I appreciate the opportunity to appear before the committee today and participate in its deliberations on the NIE. I believe now, as I did 5 years ago, that this Institute is essential if we are to alleviate the major problems facing American education and to bring about improvements in the education system that will benefit every American.

[Prepared statement of Dr. Roger E. Levien follows:]

PREPARED STATEMENT OF DR. ROGER E. LEVIEN, ACTING DIRECTOR, INTERNATIONAL INSTITUTE FOR APPLIED SYSTEMS ANALYSIS, LAXENBURG, AUSTRIA

Mr. Chairman, Members of the Committee, Ladies and Gentlemen: I am Roger Levien, currently acting Director of the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria; and formerly, Director of the Washington Domestic Program of The Rand Corporation in Washington, D.C. My testimony today, however, is solely in a personal capacity and I am not representing either IIASA or the Rand Corporation.

Soon after the National Institute of Education was proposed in March 1970, I was asked to prepare a preliminary plan for the Institute. From April 1970 to February 1971 I worked closely with persons in government, in the education community, and in the R and D community to specify for the NIE possible objectives, program, organization, relations with the educational system, and initial activities. Our objective was to find characteristics for NIE that would satisfy the needs of the educational system while taking into account the unique characteristics of the R&D system, and the realities of the political system. The resultant plan, *NIE: Preliminary Plan for the Proposed Institute*, which had been carefully examined by a broad range of persons and which reflected their comments, was published in February 1971, in time for the Congressional hearings on NIE held during that year.

The bill creating NIE, which was the result of a complex legislative history, contained many, but not all the provisions recommended in the Preliminary Plan. As it turned out, the administrative implementation of the bill also varied in a number of respects from the proposals. Nevertheless, the NIE created by legislation in 1972 was very much in the spirit and form proposed in the Preliminary Plan.

After establishment of the NIE, I had no further involvement with decisions concerning its organization or program. However, I did lead a study funded by the Carnegie Corporation of New York, whose purpose it was to develop a possible *Agenda for Education R&D*. The need for such a study had become clear during the course of the preliminary planning activity when we began to develop a program for NIE. My scientific background is not in education R&D, but rather in applied mathematics and the new field of policy analysis. So I sought the assistance of members of the education R&D and more general R&D communities of educators, of government officials, and of other interested persons and groups. It soon became clear that, without exception, the members of all of these groups held narrow views of education R&D, focused on their own interests and concerns. *Nowhere could we find a conception of education R&D suitable to establish its proper size and relationship to the education system.* Yet such fundamental decisions as the budget of NIE, its appropriate program emphases, and its internal organization rested on the availability of such a conception. In the Preliminary Plan an initial version of a national education R&D program was employed, but it was clearly labeled as "tentative" and the need for a better defined agenda was expressed. The Carnegie Corporation, agreeing that it would be useful to carry out such an Agenda-developing exercise outside of the constraints of government, made the grant that enabled us to conduct our study during the period from 1972 to 1974. The manuscript reporting our results is now in the final stages of editing for publication.

It is on the base of these two experiences—preliminary planning for the NIE and preparation of an agenda for education R&D—that I would like to rest my testimony today. I assume that the questions concerning the Committee during these hearings include at least the following three:

Should the authorization for NIE be extended? And, if so:

Should any changes be made in the authorizing legislation?

How large a budget should be authorized?

I would like to address each one.

SHOULD THE AUTHORIZATION FOR NIE BE EXTENDED?

There are two subquestions here. First, should the federal government support education R&D? And second, is NIE the proper instrument for such support?

With respect to the first, the arguments are intense and subjective. But after five years of close association with the subject, I have come to accept the following chain of reasoning in favor of federal support of education R&D.

Education from early childhood through adulthood is one of our largest industries; its expenditures reach 100 billion dollars annually.

Changes in society, in the economy, in technology, and in the persons seeking education, as well as the need to raise the general level of educational performance, demand continuing change from the education system.

Changes in major sectors of society, such as agriculture, health care, and industry, occur both through informal means—experience and inspiration, and through more formal procedures—research and development.

Those sectors of society that have made the most rapid increases in performance and productivity during recent decades have done so as a result of knowledge and products resulting from extensive R&D programs. These include the agriculture, health care, space, electronics, and aviation sectors. All major industries invest considerable sums in R&D each year.

The education sector differs from those that have successfully employed R&D in two respects. On the one hand, it is based on human and social phenomena that are inherently more difficult to comprehend than the physical, chemical, and biological bases of those sectors. On the other hand, it has invested far less, both on an annual basis and cumulatively, than other sectors of comparable size. The relatively low contribution of R&D to educational advancement thus far is the result of the compounding of those two factors.

But to contribute to more effective educational change, it is not necessary to achieve full knowledge of the underlying phenomena. Rather, both research and development can provide sonsiderable help as a result of applying disciplined procedures to knowledge-gathering and the design of new products and procedures. Thus, if sufficient investments are made, R&D ought to be able to contribute satisfactorily to the advancement of education.

Therefore, I believe that education R&D should be supported as a means of providing for more effective educational change, in a way parallel to that in which R&D has supported favorable change in other societal sectors.

Among the wide range of activities that may be included in the category of education R&D, some that meet very specific local needs, can and should be supported by local educational agencies. But it is in the nature of R&D that most of its results have broad applicability. New knowledge of how children learn to read will be as useful in Alaska as in Alabama. A new program of bilingual education can be used in South Bend as well as in the South Bronx. Moreover, most local education agencies have stringent budget constraints and short time horizons that prevent them from investing in R&D. R&D in education benefits education systems all across the country.

Therefore, we conclude that the federal government should support education R&D, as it does many other forms of socially-beneficial R&D.

Having outlined the argument for federal support of education R&D, I must add some caveats. They have to do with the dangers of unreasonable expectations, which arise from the process of "selling" programs to the government. To convince the Congress and the Administration to support education R&D, it is necessary and reasonable to promise results. The problem is that enthusiasts may be lead to promise too much, or legislators and administrators may demand too much. The invariable result, a few years in the future, is disappointment and cutback. It would be better it seems to me, to accept now the necessarily limited powers of a very young field to deal with the truly complex problems of education and to establish its basis accordingly, than to ask for the infeasible

and blame incompetence or malfeasance when it is not produced. What education R&D needs is a reasonably stable base of support, with provision for modest growth if warranted, over a long period of time. And only after decades of such efforts is it likely to produce the major improvements that we would all like to see now. That is not to say that useful results will not be obtained in the short run; of course, they will. But breakthroughs in education R&D, as in all other fields of R&D, will result from the opportunities created through the steady accumulation of results produced by many scientists and technologists working across a broad range of fields over a long period. So the federal support of education R&D should be justified not solely on short-term benefits, but rather it should be recognized to be partly a long-term investment whose pay-off will be the inheritance of our grand-children; just as we reaped the rewards of our predecessor's investment in agricultural, health, and industrial R&D.

Now let me turn to the second subquestion: Is NIE the proper instrument for federal support of education R&D? At the time in 1970 when the NIE was proposed, it was seen as a way of raising education R&D to an appropriate scientific and governmental status and of providing "a focus for educational research and experimentation in the United States." Creation of NIE was both a reaction to the difficulties encountered in planning and conducting high-quality R&D within the Office of Education and an expression of the hope that education might attract to its service the kind of R&D community that had been mobilized by the National Institutes of Health. After these first three years of experience, one might be tempted to adopt a sceptical attitude toward those initial beliefs. NIE has not been immune to planning and management difficulties similar to those that characterized the Office of Education's R&D activities. Nor has there been a substantial change in the quality or character of the R&D community serving education. Indeed, NIE has not even become the clear focus of national support for education R&D. Were the initial beliefs wrong? I think not.

With good luck, the NIE might have been further along at this time than it is. But NIE's luck has not been good. Factors beyond its control, and more a consequence of personalities and politics than of organizational design, have kept it from taking off. Instead of being freed from the limitations of the OE R&D program, it inherited them. Rather than having the stable or moderately increasing budget that is essential to creative program development, its funds were slashed to the point at which most of them were absorbed by commitments carried over from predecessor agencies. In place of the forward-looking, positive spirit of an organization that knows it has broad public support to serve an important public purpose, it had to adopt the short-term defensive attitude of a group under siege.

Despite these difficulties NIE has begun to make progress. It has attracted some very good persons to its staff. It has identified priorities and begun to concentrate on them. It has reduced the burden of previous commitments and begun to undertake new initiatives. Problems remain no doubt, but favorable signs have appeared.

It may be well to emphasize that three years is a very brief time in the life of federal R&D agencies. The NIH began in the early 1930s on the basis of laboratories that had been in existence for decades before, and did not achieve its truly productive period until after World War II. Federal support of agricultural R&D began after the Civil War, but its first real successes occurred only after almost fifty years. Federal support of education R&D is in these terms quite young. It is less than twenty years old. And the NIE is a fledgling.

We must bear in mind that an essential ingredient in the development of an effective R&D agency is time. Certainly the Congress must continue its oversight and make what modifications seem essential. But it would be a mistake, I believe, to make major changes in the federal organization for education R&D on the basis of this short experience with NIE. Now that the trauma of birth is subsiding, it needs a period of reasonable, sustained support and enlightened guidance in which to mature and reach the stage of productive contribution to education that all of us seek. So: yes, the NIE remains the proper instrument for federal support of education R&D.

SHOULD ANY CHANGES BE MADE IN THE AUTHORIZING LEGISLATION?

Having been away from Washington for over a year now, I find it difficult to address this question in specifics. Rather, I would like to emphasize two aspects of

NIE that I feel must be preserved or enhanced in any modifications of the legislation that might be proposed. These are:

High quality staff.

Linkages to the education system.

The need for high quality staff was one of the underlying motivations for creation of NIE and, explicitly, for the inclusion of an exemption from Civil Service requirements in the initial legislation. In my view, staff quality remains the most important determinant of the success of NIE and if the value the nation receives from its investment in education R&D. Since to some this may sound like an obvious statement equally applicable to all federal agencies, and to others like an undemocratic expression of elitism; let me try to make clear why in my view it is both uniquely true for NIE and fundamentally good "business" sense. The business of NIE is the allocation of federal funds in support of education R&D. NIE exerts its influence in two ways.

The first way occurs during planning, when the staff prepares for the Director and the Council proposals for what areas to support and how much budget to allocate to each. At this stage, plans will be better or worse in consequence of the awareness and judgment of NIE staff members about specific fields of R&D and the needs of education.

The second way occurs during implementation of the plan, when R&D personnel and organizations must be selected to carry out the tasks included in the program. Even though it is common practice to obtain the opinions of scientific peers about the quality of the R&D proposals received by federal agencies, it is clearly the will of Congress and in the best interests of the government that funding decisions be made not solely on the basis of such reviews. The responsible government official must be able himself to evaluate the quality of advice he has received, and to make his recommendation taking into account both the quality of R&D proposed and the priorities of NIE. Thus, at this stage too, the success of the NIE's program depends fundamentally on the awareness and judgment of NIE's staff members about specific fields of R&D and the needs of education.

To obtain this awareness and judgment it is essential to have both *training* and *experience* in the appropriate fields of science, technology, and education. Since in many of these fields the number of persons is small altogether, and among them the number able and willing to leave their normal career pattern to serve, even temporarily, in government is smaller still, the NIE will have very little opportunity to employ competitive procedures for selection. Hiring a scientist experienced in research on reading difficulties among bilingual children to supervise a major research program demands different procedures than hiring a clerk at the Veterans Administration. So if the NIE is to plan and support a high-quality national R&D program in education, it will have to employ different personnel procedures.

Complementary to the need to assure a high quality of R&D through employment of a high quality staff, is the need to guarantee a high degree of relevance of R&D to education through establishment and maintenance of many linkages to the education system. This assertion is less controversial, except perhaps among those researchers who feel that the demands of practitioners may inappropriately divert science from its most promising directions. Yet, it may be worth considering in reviewing the NIE legislation, whether there are specific ways of strengthening these linkages.

Through its Dissemination program area, the NIE is making considerable strides in this direction. I have only the following additional suggestions to present for consideration.

First, the linkage between the NIE-funded research community and the state and local education agencies can be strengthened if the education agencies themselves have R&D activities, in the form both of small internal R&D offices working on local problems and of monies available to procure R&D assistance. The experience in all other fields of R&D is that R&D results enter organizations most efficiently through an internal link to the R&D community. The Congress might consider a program of matching grants to encourage the formation of such R&D offices and programs in state and local education agencies.

Second, the perceived relevance of the NIE program to the concerns of the education systems can be increased if at each level in the NIE, contacts are established and maintained with groups of persons from the education system (including its clientele) having a direct awareness of the problem being studied. This means that the definition of the problem and approaches to its solution should be accomplished in continuing contact with representatives of the education

system. Many mechanisms for this collaboration are possible—advisory groups, joint study teams, consultants, field surveys. It is more important to establish the principle, than to specify the means. (The one possible exception to this is NIE's basic research program, whose specifics are most appropriately determined through consultation with the knowledgable research community.)

While I have emphasized the needs for high quality staff and linkages to the education system, I should like to add my support for two other elements of NIE's program. The first one is its support of basic R&D germane to education. It is from these investments, which should be an inviolable portion of NIE's budget, that the possibility of major improvements in education arises. The second one is its support for building an effective education R&D system. *Unlike other sectors, there are no non-governmental forces at work to create the full range of trained personnel and institutions needed to conduct the desired national program of education R&D.* In parallel with its other concerns, therefore, the NIE must monitor the progress and encourage the development of an adequate education R&D system. In particular, it must be in a position to offer fellowships to attract necessary personnel and to provide the seed money for institutions.

HOW LARGE A BUDGET SHOULD BE AUTHORIZED

At the time of the NIE's creation we foresaw, probably naively, a growth of NIE's budget in response to the obviously great needs of education, constrained primarily by the maximum sustainable rate of increase of a federal scientific organization (assumed to be about 25 percent per year). Our aspirations now must be brought into closer conformance with reality.

Determining an appropriate budget for education R&D was one of our principal concerns during the effort to develop an Agenda for Education R&D. Perhaps it is not surprising that we were forced to conclude that there is no objective way to determine, without reference to very specific program possibilities, what an appropriate budget is.

On the one hand, we were able to identify in the Agenda a collection of potential R&D activities of obvious relevance to education whose total cost would be far in excess of current or foreseeable future budgets. We can therefore establish that the budget is not limited (within practical bounds) by what it would be of value to the education system to do.

On the other hand, we were not able to establish satisfactory limits on the capabilities of the education R&D system. There are certainly not enough R&D personnel, nor sufficient R&D organizations, to conduct the full collection of R&D activities identified in developing the Agenda. Yet there is surely the possibility of expanding fairly quickly beyond the effort currently being expended. We can, therefore, say that the budget is constrained by the capacity of the existing and prospective R&D systems, but by how much is not certain.

We could argue that the proper budget is determined as a percentage of total national expenditure on education. In the long run, this indeed can provide some guidelines, since we can refer to the investments in other sectors that have been necessary to achieve satisfactory benefits from the R&D system. However, the many differences between education and the other sectors must be borne in mind. And the limits of R&D system capacity still apply. This is, at best, a rule of thumb.

The consequence of these considerations, it seems to me then, is that the budget decision must be an incremental one, rooted in specifics. The place to begin is with the current budget. Presumably it is in some reasonable balance with the capacities of the education R&D system. The question then is: should the budget be increased or decreased, and by how much? To answer this, it is necessary to look at the specifics. *How much has been accomplished? What is the likely value of what is proposed? What are the alternative users of the funds available? If increases are proposed, then the ability of NIE and of the R&D system to effectively employ the increment must be considered.* It is doubtful whether yearly increases greater than 25% can be satisfactorily expended and employed, although in particular types of programs it might be possible.

What this means for the authorizatiod process then, is that the total budget authorization should be the sum of budgets obtained by increasing the current budget by 25% in the first year and adding an additional 25% in each successive year. This provides an upper bound within which the budget can fluctuate each year as a result of the appropriations process.

This concludes my formal testimony. I appreciate the opportunity to appear before the Committee today and participate in its deliberations on the National

Institute of Education. I believe now, as I did five years ago, that this Institute is essential if we are to alleviate the major problems facing American education and to bring about improvements in the educational system that will benefit every American.

Mr. BRADEMAS. Thank you very much, Dr. Levien, for a most thoughful and illuminating statement. I think it might be most helpful if we asked Dr. Glennan to go ahead and testify and then perhaps we can put questions to you as I think both of you may have something to say.

Dr. Glennan, we are glad to have you back before the committee.

STATEMENT OF THOMAS GLENNAN, STUDY DIRECTOR, NATIONAL ACADEMY OF SCIENCES, WASHINGTON, D.C., FORMER DIRECTOR, NIE

Mr. GLENNAN. Thank you, Mr. Chairman, it is a pleasure to be back, to be before a subcommittee which has been so helpful and supportive in the cause of the National Institute of Education.

It will come as no surprise to you that I endorse very strongly the continuation of the National Institute of Education. I believe that, given all of the factors that have surrounded the creation of the Institute, it has made a credible beginning.

Moreover, I emerge from my experiences holding to the conviction that a National Institute of Education is an important institution, one that is required by this Nation as it faces the awesome challenges of the future. The introduction to the legislation creating NIE is correct in stating that we require "far more dependable knowledge about the processes of learning and education than now exists" in order to improve the Nation's capabilities to provide an equal opportunity to obtain a quality education for all its citizens.

The last year has given me some opportunity to reflect upon the experiences of 2 years as Director of NIE. One of the things that I have come to feel is that the mission of NIE is rather more unique than I had originally conceived.

I think there are three major classes of research supporting institutions within the Federal Government. One class supports research for the use of its parent mission agency, the Social Security Administration is an example of this. The research agenda is derived from the needs of the Federal policymakers and is relatively straightforward.

The second class of support institution includes the supporters of basic research, the National Science Foundation and National Institutes of Health, and so forth. In those cases the agenda, the research agendas are set by the research community and typically up to this point in time the most important constituency of those agencies has been the research community. That is changing to some extent now, but it has been a relatively homogeneous constituency.

Agencies that are carrying out largely applied research on behalf of school systems, social service agencies, State and local governments, are a rare group of agencies and have, I think, a very much more difficult task. NIE is such an agency, and its task is to manage a program of applied research or largely applied research on behalf of the Nation's schools and its citizens.

There therefore exists no single group of policymakers to provide direction in determining educational needs. Moreover, there is no organizational mechanism for implementing the policies which are at least partially derived from its research.

The legitimacy of NIE's activities cannot be derived from its own authority or from that of its parent organization, that is, the legitimacy in the eyes of the many constituencies NIE has. Rather it must be derived from the quality of the processes that it uses to set its research agendas, to select the institutions and individuals who perform its research, and transit the results of its research to potential users.

My own judgment is that NIE's legitimacy will flow from its openness, its fairness, its responsiveness as well as the leadership it brings in the sponsorship of NIE research.

We have only begun to appreciate how difficult it is to create public bureaucracies which have these qualities, and it is fair to say NIE still has some distance to go.

Now, I think NIE and other agencies must search for this legitimacy in the face of a rather severe handicap, the absence of any consensus as to how to effectively link the research with practice.

What conventional wisdom we have about this problem is derived from the harder technologies. The space and defense programs have elaborate and publicly accepted means of developing new equipment which embody new knowledge and which by their introduction into operational settings, produce significant behavioral changes. Educational research and development has neither the persuasive development process leading to the embodiment of knowledge in products nor the lines of authority to compel the use of such products if they were produced. Local situations are too unique, the innovations too value laden, and our belief in local autonomy too strong to permit such a process or an authority structure to develop.

The process of applying knowledge generated through educational research and development must be much more subtle. It must recognize that the inputs that most affect what goes on in a classroom are the wisdom and advice of practitioners. It must recognize that decisions on what is done in local classrooms rest and must rest with local teachers, administrators, and parents.

Because of this absence of consensus, it is my judgment that NIE must conduct its research and development activities under an array of plausible assumptions as to the best methods to bring about this linkage. It should be seeking to consciously assess the success or failure of these approaches and to use these insights to guide its future program planning. Moreover, this experimentation must involve a continuing and sympathetic partnership with teachers and administrators searching for better ways to educate children and to run their schools.

I believe that the implications of such an experimental strategy are profound indeed, for following such a strategy constitutes the tacit admission that the education, research, and practice communities do not know how, or at least are not agreed upon the ways to achieve the goals which lead to the creation of NIE. No universally accepted wisdom exists on what constitutes a good research and development process.

Now, to go on to what I think the implications of these two points are, that is, that the legitimacy of NIE will be derived from the quality of its management, the quality of the processes it uses for planning and the quality of its openness and its accountability to the public and that in the foreseeable and near-term future, that a certain amount of experimentation with the methodology of education research and development must be undertaken.

I believe the implications of those are that NIE does require, as Dr. Levien has suggested as well, a period of stability in which the fiscal environment does not continually shift, and in which NIE and the public can develop reasonable expectations about the shape of the future, and in which mere survivial does not become the paramount instinct.

NIE must continue to attract and retain a high quality staff that is capable of creatively planning and managing an innovative program. Few individuals can withstand for a very long time the battering associated with NIE's past experiences. If key staff must be replaced every few years, neither good planning nor continuous development of solid methodology is likely to occur. Therefore, I believe that a primary goal for this committee, as it faces the reauthorization process, is to create as many incentives for this stability as possible.

I want to provide five concrete suggestions which I think are supportive of that.

First, Mr. Chairman, I believe the National Council on Educational Research should be retained in its current policymaking role. I believe that is, in fact, a bit of genius in this legislation, which I realize come about in sort of a serendipitous manner.

It has provided a degree of continuity. It has provided a degree of representative guidance in the policymaking of the Institute. I think they have been a very useful contribution to the conduct of the affairs of the Institute, and my sense is things are improving as they learn more about their role.

Second, I would like to suggest the authorization be extended to 5 years rather than 3, and that the House and Senate, this committee and its counterparts in the Senate, should hold annual joint oversight hearings on the NIE program that permit an exchange of views between the Congress and the executive branch as to the nature of the research program and indeed as to the findings from that research progrm. I recognize that that is an imposition upon the valuable time of members of this committee, but I think it is an important step and would be very useful to the Institute as well I hope as the Congress.

Third, (and this is something I think probably is nearly impossible to achieve, but it seems to me terribly important) an effort should be made to strike agreement between the authorizing committees, the appropriations committees, and the executive branch in setting levels of authorized funding that are politically feasible and institutionally desirable.

We have had this tremendous instability that has been associated with the lack of congruence between these three groups, and I believe that some initiative should be taken to try to specify reasonable levels of authorized appropriations and obtain appropriations that in fact meet those levels.

Fourth, I think the committee should consider authorizing advance funding for the Institute. When the committee originally created the legislation, it authorized "no year" funds. The appropriations committee had never been willing to go along with that authorization for what I think are quite good reasons in many cases. But 1-year appropriations has meant there has been, with late appropriations, the usual kind of hurry up and spend attitude within the Institute that exists in all of the other Government agencies.

If there were advance appropriations, there could be a longer period for planning with the discipline of the end of the fiscal year remaining to see that accumulated unexpended balances do not occur.

The final point is related to the fact that I believe the institute is still in a period of coming to grips with its constituency, of developing better ways to interact, feedback, and create a joint research agenda. I think the areas of priority concern might better be dealt with through report language rather than by placing them in the authorizing legislation itself, and I would hope that the oversight hearings each year might lead to modifications of priorities through time. Perhaps at the end of 5 years or sometime along the line, we would be so clear as to the right way to organize the institute that we could go forward with something that is more firmly inbeded in the authorizing legislation. I do not think that that time has come.

Mr. Chairman, I think that great institutions are not made in a day. I think that the institute has made a good start. I think it needs some stability, some time in which to develop a clear perception of its place in the education world, and its way of doing business, and I hope that what I have said will be of some use to you as you go forward to that task.

Thank you, sir.

[Prepared statement of Mr. Glennan follows:]

PREPARED STATEMENT OF THOMAS GLENNAN, STUDY DIRECTOR, NATIONAL ACADEMY OF SCIENCES, WASHINGTON, D.C.

Mr. Chairman, Members of the Committee: I am delighted to have the opportunity to meet with the Committee on Select Education to discuss the reauthorization of the National Institute of Education. As you might imagine after two hectic years as Director of NIE and a year to ponder those experiences, I do have some thoughts which I hope will be of interest to the Committee.

The first three and one half years of NIE's existence have been a period of significant if not spectacular accomplishments:

A staff of considerable quality has been brought together to plan and manage a major program of research and development.

The institute has responsibly completed much of the work it inherited from the Office of Education and in some instances contributed substantially to profitable redirection of this work.

The National Council on Educational Research has established five program areas around which the work of the Institute can be intelligently organized and, to my knowledge, these areas have found reasonable acceptance among a broad segment of interested citizens and professional organizations.

The Institute has created the management structures and administrative procedures to allow it to function, albeit at times with less than complete distinction. It would be impossible for one who has not been through this process to imagine the difficult task of creating the Byzantine structures underlying our government agencies.

Several programs within NIE have supported exciting and innovative planning efforts and have begun to sponsor significant work. It must be remembered that until the current fiscal year, NIE had initiated only 25 million dollars worth of work out of a total expenditure of 250 million dollars. Therefore, it is not surprising that extensive new efforts are just now receiving funding.

These accomplishments have taken place in the face of numerous obstacles about which the Institute has been able to do very little. These include:

A Congress which, through its appropriations committees, has not only expressed grave and continuing reservations about educational R&D but has subjected the Institute to very great uncertainties about appropriation levels and earmarks.

A baffling and sometimes conflicting array of rules, procedures, guidelines, and manuals which the Department of Health, Education and Welfare has established to provide general guidance to all its constituent agencies.

An Executive Branch that has been less than thoughtful in its political guidance to the Institute and which has demonstrated marked indifference to its responsibilities to appoint both members of the National Council on Educational Research and the Director.

A research community which is deeply divided concerning the substance and method of the work that the Institute should be supporting and whose lobbying has had a distinct air of special pleading.

A community of educators, skeptical of and threatened by research and development, who are frequently more concerned about where their next dollar is coming from than the long term futures of education.

An absence of consensus over the means by which to conduct and apply research for the improvement of education.

In short, I believe that the Institute has made a credible start given the obstacles it faced. I know it could have done better had it more realistically perceived its situation, but certainly it could have done worse. And what now exists provides a good base for building the type of institution this Committee had in mind when it developed NIE's legislation five years ago.

Moreover, I emerge from my experiences holding to the conviction that a National Institute of Education is an important institution, one that is required by this nation as it faces the awesome challenges of the future. The introduction to the legislation creating NIE is correct in stating that we require "far more dependable knowledge about the processes of learning and education than now exists . . ." in order to improve the nation's capabilities to provide an equal opportunity to obtain a quality education for all its citizens.

In thinking about the future, it is important to recognize the relatively unique research support mission of NIE. Within the Federal government there are three major types of agencies supporting social research. The first supports applied research as an aid to its own operating mission and is exemplified by the research offices of the Department of Labor or the Office of the Assistant Secretary for Planning and Evaluation in HEW. The second type of agency supports basic research and, up to now, has largely served and responded to the research community. The National Science Foundation, as well as parts of the National Institutes of Health and the National Institute of Mental Health, are agencies of this type. Agencies carrying out largely applied research which is intended to be useful to institutions in our society that are not managed or even funded by the Federal government constitute a third category and are relatively rare. NIE is such an agency, and its task is to manage a program of applied research on *behalf* of the nation's schools and its citizens.

The consequences of this mission are of great importance. There exists no single group of policy makers to provide direction in determining educational needs. Furthermore, there is no organizational mechanism for implementing policies partially derived from research. The legitimacy of NIE's activities cannot be derived from its own authority or that of its parent organization.

Rather, its legitimacy must be derived from the quality of the processes it used to set its research agendas, to select the institutions and individuals who perform its research, and to transmit the results of its work to potential users. My own judgment is that NIE's legitimacy will flow from its openness, fairness, and responsiveness, as well as the leadership it brings to the sponsorship of educational research. We have only begun to appreciate just how difficult it is to create public bureaucracies that have these qualities. It is fair to say that NIE still has some distance to go.

How can an agency such as NIE gain legitimacy? The processes used for planning are a major source. The quality of NIE's relations with its wide variety of constituencies, its ability to listen, to integrate frequently conflicting desires expressed by these constituencies, to combine a sense of what is needed with what can be done, and to explain its decisions to the public will be the basis upon which it will be judged. In any short period of time, NIE's performance cannot be eval-

uated on the basis of the improvements in the education of our children that are attributable to its programs. Its success, and the desirability of its continuation, will depend upon the way it does business.

NIE must search for this legitimacy in the face of a severe handicap, the absence of any consensus of how to effectively link research and practice. Members of the practitioner community, as well as members of the public and Congress, have repeatedly called for bringing research that is "on the shelf" into the classrooms and implicitly they have questioned the wisdom of supporting more research until we apply what we now know. The unfortunate fact is that we understand relatively little about how to bring about this linkage.

What conventional wisdom we have about this problem is derived from the harder technologies. The space and defense programs have elaborate and publicly accepted means of developing new equipment which embody new knowledge and which, by their introduction into operational settings, produce significant behavioral changes. Education R&D has neither the persuasive development process leading to the embodiment of knowledge in products nor the lines of authority to compel the use of such products if they were produced. Local situations are too unique, the innovations too value laden, and our belief in local autonomy too strong to permit such a process or an authority structure to develop.

The process of applying knowledge generated through educational R&D must be much more subtle. It must recognize that the inputs that most affect what goes on in a classroom are the wisdom and advice of practitioners. It must recognize that decisions on what is done in local classrooms rest and must rest with local teachers, administrators, and parents.

This is not a new concern. NIE and its antecedent bureaus in the Office of Education have pioneered means by which to bring about the effective applications of knowledge. The Educational Research Information Centers (ERIC), the change agent programs, the careful program development and diffusion in the Education and Work Program, the planning and investigation in the Program on Local Problem Solving, and the support of experiments by the California Commission for Teacher Preparation and Licensing are but a few examples of the array of attempts to understand the best way to link research and practice.

In my judgment, the conduct of research and development under an *array* of plausible assumptions as to how applications will be obtained is the proper NIE strategy at this point in time. The Institute should seek to consciously assess the success or failure of these approaches and use this insight to guide its future program planning. Moreover, this "experimentation" must evolve a continuing and sympathetic partnership with teachers and administrators who are searching for better ways to educate children and to run their schools.

The implications of such an experimental strategy are profound, for following such a strategy constitutes a tacit admission that the education research and practice communities do not know how to achieve the goals which led to the creation of NIE. No universally accepted wisdom exists on what constitutes a good R&D process. It is impossible to write manuals to guide R&D planning in education such as exist in DOD or NASA. This absence of consensus makes it difficult for the director of NIE to go before Congress and the American public to promise that investments in educational R&D will surely lead to improvements in American education. The justification for an NIE is not the proven success of its projects, although there are successes, but rather the importance of the problems it is addressing and the absence of other clearly superior means for addressing those problems.

If NIE is to fulfill the promise you envisioned for it, it must bring a new level of public management to its operations. It must find a way to creat a partnership with its numerous constituencies that will permit it to create sensible and relevant research agendas and to begin to provide the informed leadership necessary to its mission. This requires painstaking interaction with interest groups having many other interests besides research. It requires returning to those interest groups to explain why decisions were made and why their advice was or was not used. It takes efforts at persuading those groups of the reasonableness of NIE's decisions.

While this is a difficult task, I do not believe it is impossible. My own experience suggested that an enormous number of good and reasonable people are involved in educating our children, training our teachers, or carrying out research. Unfortunately, we had too little time to engage in dialogue. Too frequently we heard from them or they heard from us, but we took no time to try to understand what each was saying. Moreover, frequently the best of intentions had to be discarded as the Institute was buffeted by another funding cutback or another

earmark. Promised new programs failed to materialize, or quickly and imperfectly conceived programs were advanced because they seemed to meet some perceived political need. It was not an environment in which a government agency of high quality could be easily developed.

At the same time that such dialogues are developing, NIE must carry out a frankly experimental program of research. A variety of approaches to research planning must be tried. A variety of types of performers must be engaged in research, development, and application. A variety of methods of applying knowledge must be tested. During this time the Institute will not appear to be a tightly integrated organization with a clear perception of its mission or of the means by which to reach its goals. It will be an inquiring and adaptive organization. Importantly, it must position itself to learn from its activities. One program of research must be able to benefit from the experiences of another. Some form of organizational memory must be created.

Both these requirements for NIE require a period of stability in which the fiscal environment does not continually shift, in which NIE staff and the public can develop reasonable expectations about the shape of the future, and in which mere survival does not become the paramount instinct. NIE must continue to attract and retain a high quality staff, a staff capable of creatively planning and managing an innovative program. Few individuals can withstand for very long the battering associated with NIE's past experience. If key staff must be replaced every few years, neither good planning nor the continuous development of solid methodology is likely to occur. Therefore, I believe a primary goal for this Committee should be to create as many incentives to stability as possible. Let me provide a few concrete recommendations:

1. The National Council on Educational Research should be retained in its policy making role.

I believe that the NCER not only provides leadership from a diverse group of educators, citizens, and researchers but also lends valuable continuity and stability to Institute policy making.

2. The authorization should extend for five years rather than three, and the House and Senate should hold annual joint oversight hearings on the NIE program.

The five year authorization provides some additional stability and the oversight hearings would lead to a recurring and regular substantive dialogue with the Congress. I believe both the Institute and Congress would benefit from such hearings.

3. An effort should be made to strike an agreement between the authorizing committees, the appropriations committees, and the Executive in setting levels of authorized funding that are politically feasible and institutionally desirable.

I believe that the immediate need for NIE is not more funds but rather more stability. The annual level of authorizations might begin at about $80 million and increase by perhaps 5 to 10 percent a year.

4. This Committee should consider authorizing advanced funding for the Institute.

The NIE authorizing legislation provides for "no year" appropriations, but the appropriations committees have been unwilling to make funds available on that basis. As I understand your intent in authorizing such appropriations, you were seeking to avoid the ill planned rush to spend funds at the end of a fiscal year. The same goal can be achieved by advanced funding, appropriations that are made a year ahead of their use. This provides better lead time for program planning and a clear basis for dealing with the contractors and grantees.

5. The areas of priority concern might be better dealt with through report language rather than by placing them in the authorizing legislation itself.

The need for continuing negotiation with NIE constituencies over the coming years is better served by flexibility to modify and redefine problem areas. We certainly are not sure that the current problem areas form the best basis for organizing the Institute.

Great institutions are not made in a day. They are usually the product of careful and thoughtful development. The suggestions I have made are intended to help create an atmosphere in which such development can proceed. In particular they are designed to bring some stability to NIE operations, greater congruence between the expectations held for NIE by its many constituencies, and a genuine partnership between the Congress and the Executive in continuing the creation of an institution capable of making a significant contribution to the nation's quest for an education system that provides both quality education and equality of educational opportunity.

Mr. BRADEMAS. Thank you very much, Dr. Glennan, I think that is a most significant statement because obviously it is rooted in your own experiences as Director of NIE for a period of 2 years, and that you and Dr. Levien have been identified with the NIE in differing ways chronologically and in terms of your responsibilities, I think lends all the more substance to what you had to say.

What strikes me, Dr. Glennan, just to comment on the linkage between a number of the sentences in your statement is this, that you make what you think is the very intelligent point, not unrelated to Dr. Levien's observation that time is necessary for us to see the benefits of an effort in educational research, but that in any short period that you really cannot evaluate the program on the basis of some improvements which presumably would in some respects be quantifiable of the educational performance of students, but rather it is the process to which emphasis must be given.

Now, you remarked, in the absence of any consensus in the R. & D. communities on just what is the best way to go about, or what are the best ways more appropriately, to go about supporting research and development in the field of education or conducting, more accurately, R. & D. in this field, that therefore we need to take a pluralistic approach which would be rooted in an understanding, a tacit admission, I believe you said, that there is absent a consensus on how to achieve the goals of the NIE.

I find myself resonating positively to this general kind of approach, simply because, and I won't say simply, but in large measure as a result of having sat on this committee for 17 years now dealing with a wide variety of education problems. I have just through my own experience learned how enormously difficult it is to make sweeping generalizations about cause and effect relationships in this field and the more I sit on the committee the more I realize how little we know.

I don't, at the same time, in saying that, don't want to say that I think we know nothing. I don't think that is true. I think we do know and probably we don't use adequately what we already know. But I just want to identify myself with the general thrust of, I think, the statements that both of you have made, and see if we can ourselves, in Congress, be somewhat less insistent that if we put a nickel in the slot machine on Monday, that the jackpot will be ours at least by Thursday and, having said that, I would like to ask a couple of more particular questions.

Dr. Levien, you made the point, I believe, that there are no very sweeping statements, I believe you said, "There are no nongovernmental sectors supporting educational research and development." I think you said, on page 10, "Unlike other sectors there are no nongovermental forces at work to create the full range," and you were more specific, "to create the full range of trained personnel and institutions needed to conduct the desired national program of education R. & D."

Now why do you think that, if I read this right, that there has not been a greater effort on the part of the nongovernmental sector of our society to attend, not only to the specific problem you talk about, creating a full range of trained personnel and institutions, but going on from that, to pay attention to educational R. & D. generally in this country?

Mr. LEVIEN. I think one must start with the obvious fact the major responsibility for education in the country is governmental at

the local and State level, and that in both of these cases neither the funds nor the inclination to support R. & D. has been widely present, both because R. & D. has a necessarily public benefit, that is the local governments and State governments investing in R. & D. would be investing for wide benefits. They don't have the funds, nor do they have the inclination to make such widely ranging contributions when they have local problems to concern them.

Secondly, we have only one other part of our society with this kind of interest, that is the foundations. While they have been active, they have been active in very specific pieces. The main point I was trying to make there is that in each of our sectors we have complex R. & D. systems which take care of both research and development and implementation. These have grown up because of the desire and benefit that inures immediately to industry or other participants in the operating system from R. & D.

This does not occur quite so naturally in the education system, and therefore we have not developed, for example the institutions which do development, the institutions which do implementation. Without those institutions, putting more money into R. & D. will not return any real benefit.

My point is more that we have to consciously create an R. & D. system because it is a Federal responsibility to spend the R. & D. moneys. No other organizations around have the interest or ability, or funds, and not only do we have to spend the funds but train personnel and build institutions which can use them.

Mr. BRADEMAS. I would make one observation and ask only one other question. Given that you spend $100 billion on educational systems in this country, I still find it curious that there does not seem to be sufficient interest on the part of the intellectual community in systematically going about R. & D. from the viewpoint of an inquiring scholar. I should have thought, I mean Mr. Quie and I have to be interested in these matters for very practical reasons, but I should have thought the fascination of learning more about learning would have been enough incentive, particularly in universities, to persuade universities on their own to do more R. & D. and they ought to be able to find the money—if they take it—I guess what I am playing back at you is this: If educators really thought research and development in education was important enough, they would fight harder for it. I am very critical of educators because I don't think they understand how important it is, and I think one of the reasons that educators are in as much trouble as they are in this country is they don't understand how important education is, if you see what I mean?

Mr. LEVIEN. I see fully what you mean, and I certainly agree with you, but I think we have to separate the activities of R. & D. into several separate pieces and universities have traditionally only been been concerned with one of those pieces, the basic research part; and applied research, development, and so on have not traditionally found a home in the universities.

Mr. BRADEMAS. Universities have not even been interested in research on universities.

Mr. LEVIEN. I am certainly not in the position, nor do I want to be in that position. I say if they have done anything, it has been basic

research in education and there is a history of basic research in education that has been done in universities, not as much as it should be but it is as though we rely on the physics department to do industrial R. & D. They do a piece and contribute to basic physics and there is a piece that grows up naturally because of the financial interest in industry in getting development and applied research done.

It is in the sense of that other part, applied research and development, any incentives for that outside of universities that I think opens this area for Federal responsibility.

Mr. BRADEMAS. I have one other question.

You made the statement, Dr. Levien, that you think it would be a mistake to make major changes in the Federal organization for education R. & D. on the basis of this shortage of experience with NIE.

Dr. Glennan, you made the statement in No. 5 of your recommendations that it would be better, you made a similar statement rather I think that it would be better not to try to rewrite the structure of the operation of the NIE but for Congress to give any direction through language in the report.

Do I take it, therefore, that you are saying it would be unwise to move in the direction, for instance, of establishing by statute some network of institutes, each of which would be tied to a different level of education, preschool, elementary and secondary, and postsecondary, to indicate just three, and would you comment on that?

Mr. GLENNAN. I would not favor that at the present time. I am not sure that we know enough now or that we have had enough time within the Institute to interact with various constituencies to decide exactly what these institutes should be. It seems to me that what is required over the near future is a continued attempt to explore and push forward with the current problem areas, to modify those as planning and interaction with the fields suggests that they ought to be modified and, perhaps, at some point in time, attempt to accumulate them into a separate set of linked institutes in the way that NIH is linked.

My guess is another factor that ought to be included here. I am implicitly and maybe quite explicitly suggesting I don't expect to see a large increase of sums going to NIH in the near future. I believe that the overhead that might be associated with creating a separate set of Institutes at this point in time is simply not merited. But the intent of those Institutes, that is to try to produce communication wit hand loyalty of various parts of the practitioner communities, seems to me to be an important intent and one which the Institute should move very strongly to encourage. To do that, I must say, NIH must find some ways to continue those interactions and not to have them once a year or once every 2 years in order to ratify some Institute-designed initiative.

Mr. BRADEMAS. Do I take it by the nodding of your head, Dr. Levien, it indicates you share that general assessment?

Mr. LEVIEN. We considered this option at the time of preliminary planning for NIE and rejected it at the time because we felt the amount of talent for managing research and development within the Federal Government was necessarily limited and it would be better to concentrate that in a single bureaucracy rather than establishing four or five to manage R. & D.

I think the argument still holds at the level and size the Institute has attained thus far. As it grows I think it is a viable way, in fact, a necessary way for it to develop. If we foresee increased funding I would be very much in favor of it. I would think, in fact, certain of the antecedents ought to be established within the existing structure perhaps by establishing councils or committees concerned with different levels of education which involve practitioners.

I think at this time it might very well be a mistake to split us apart, what we are just beginning to develop in the way of a viable central guiding core for the Institute.

Mr. BRADEMAS. Thank you very much. Mr. Quie.

Mr. QUIE. Thank you, John.

Dr. Levien, in response to Mr. Brademas' question about why there were not certain kinds of research going on, you related it to the research that is accomplished outside of the industrial field. How do you think this ought to be structured in order that NIE could be most effective in adding on to what is going on in other educational research, in supplementing it, and in helping to direct it in a way and in some way being a leader?

Mr. LEVIEN. I mentioned in the testimony I think one thing NIE or Congress could do is to encourage more vigorous research and development activities by the State and local agencies themselves. I think there are several reasons for this, but perhaps the two most important are experience in other fields, industry and otherwise, and I suggest the way that research and development enter into practice is through R. & D. groups, linked very closely with the practitioners. I think if there were R. & D. officers in local and State agencies, they would be considered as effective linkages to the community. Secondly, they might spend money at development agencies, at research agencies around the country, which would provide them with the results they need.

In other words, this is one way of providing closer linkage between the R. & D. community, or R. & D. system and the education system.

Now, what the responsibility of NIE ought to be is to make sure that the proper set of institutions is there, the applied research and development institutions, which can serve State and local agencies by helping to solve their problems, by helping to develop new curricula or new processes and that which has been absent, except for the case of the R. & D. centers of laboratories, which of course was a Federal initiative.

So I say NIE has a role of stimulating the creation of a R. & D. system and of helping to encourage the use of that system by the State and local agencies.

Then, finally, funding that kind of research and development which is of wide applicability. In other words, there are special applied tasks which would be done particularly for a State or local agency, but there are many things that can be done that are of broad national interest, and it is the NIE's responsibility under that kind of funding which would be broadly applicable development, basic research and broadly applicable applied research.

It is the linkage between the R. & D. system and the education system I think it is important to establish.

Mr. QUIE. I think that is one of the shortcomings of NIE since its inception, that the coordination was not done as effectively as I think we desired, and I think probably as you would have liked, too, while you were down there directing it.

What about funding? Do you think you could have better flexibility if NIE could match a portion of the research grant and in that way be tied more closely to what already may occur at the Institute of Higher Education, or at the State or local levels?

Mr. LEVIEN. I think so. But I think it would be difficult within the current funding level. I think the Congress ought to consider a parallel funding path for matching funds to State and local agencies to buy R. & D. I would not like it to come out of the existing level of NIE funds. Whether that can be done, I am not in a position to say. I am just proposing.

Mr. QUIE. Why? I can understand it would be better if we had additional money and would give out that additional money in grants, but why can't you also do it with existing money?

Mr. LEVIEN. Because I think the existing moneys are too small for the major work that needs to be done. If we further dilute them by this kind of spreading of funds out to be used to do very specific tasks, the net benefit to the country will be less than if this is an additional increment. These are judgments, but obviously they are personal.

Mr. QUIE. Dr. Glennan, would you like to react?

Mr. GLENNAN. Surely.

I think one of the very important points behind what Dr. Levien, and, in fact, both you and Congressman Brademas have said, is that there has been much too little research and development at the local school system level. I think that, as Dr. Levien said, that goes against all of our understanding from industrial areas, about how research comes into the operations of an industrial firm. In most firms it is the engineers and the staff of those firms who are deeply familiar with the problems, the product lines, and the labor relations situation, who are charged with creating new ways of producing products, or new products to be sold.

We don't have any such tradition in the school systems of the country. Now, I am a little dubious about moving very quickly to create, through formula grants or through matching grants, that kind of capability. But I am not dubious at all about moving quickly to learn how to do it.

I think we could reasonably expect, within the level of funding currently available, that there should be experimentation with creation of such capabilities. I want to seek to understand something about the incentives that will cause school systems to use research capabilities well or use them badly. On the basis of such understanding the Congress and the Institute ought to be trying to devise a future program for the creation of this kind of capability with costs being shared by the Federal Government and the local system.

I think there are lots of difficulties here. The measures of outcomes in schools are poor. The decentralization of decisionmaking within school systems is very high, so you don't have the authority structures you have in industrial plants. Thus, we know there are significant

differences between school systems and industrial systems. Those need to be understood before we jump into a significant program of support of this sort.

Mr. QUIE. Is there anything in the law to prohibit that type of experimentation now?

Mr. GLENNAN. Not that I know of. Indeed, there are some pieces of what the Institute is now doing which constitute such experiments. Both within the so-called local problem-solving program and in the dissemination program, there are currently attempts to understand how local school systems go about solving problems that would logically lead into the design, I think, of a larger scale program to facilitate such problem-solving.

Mr. QUIE. Do we need to give direction through legislation or anything?

Mr. GLENNAN. That is why I argued for your oversight. I think such experimentation would be a fine move myself. I really feel that that is the most important single part of the R. & D. system that needs development. It is the part that is the missing link, if you will. I would like to see the Congress stay in close touch with the program and seek feedback, both from the Institute and from the people in the field. I think you should understand what those schoolteachers are going through out there as you seek to give guidance in this legislation.

Mr. QUIE. I think that is one of the reasons why we didn't have a constituency that spoke up when the cutback of funds were occurring. Hopefully now that will be available.

Mr. GLENNAN. Let me comment on that a little to show you how difficult building a constituency is. This, you know, is a very personal set of feelings. But one of those programs that was undertaken was in fact oriented toward the teachers. It proceeds from the conception that the most important element of the design of new educational processes really is at the school building level with principals and teachers.

Immediately upon making a modest investment in that, we were beset by the administrators who said, "Well, we should have had that money." I mean it is much more legitimate to put it in the administrators' bailiwick.

The fact is in the future, if we had the resources, we were going to try to experiment in the administrator's bailiwick. But each time you make a judgment one way or another about what class of performer to support, you may win a few friends but you lose a lot. That has happened repeatedly at NIE. At the low funding levels that the Institute has, I think the only way that you can beat this problem is by continued discussion back and forth, so that awards such as those to teachers and principals are not just isolated acts that the other constituents who are not receiving the money in that particular competition don't understand. There has to be this continual interaction with the field.

Mr. QUIE. It is interesting that in the industrial field there is a great desire for the results of research to improve productivity. If they can do it without others finding out about it, they will try even harder, and the others will try harder to find out about it so they can do it, too. It seems to me the same thing works in athletics, especially in

interschool athletics, so we are not absent that in education; but in the academic area it seems to be that the schools are jealous of each other and some don't want to start a new venture because the other one has this situation, so we have to cut through that.

What do you think are the issues that are of greatest concern for which we need research right now? I will ask both of you that question.

Mr. GLENNAN. I think we already stated one of the most important ones. You know, when I first started in the job, the Congress had just disposed of an initiative which was called educational renewal. I don't hold any great brief for education renewal, but I do believe in the notion of an inquiring and adaptive capacity at the local level. So I think the first problem is really to understand how to create this capacity and what it means, and I think the way to start it and the way the Institute indeed has started it is to look at where good people are doing good things now.

I think questions concerning compensatory education, and desegregation as it is associated with compensatory education are absolutely crucial. They are obviously separable and separate issues which come together frequently.

I was hopeful, at least a year ago when I was last associated with it, that what I think is an exemplary and much needed partnership between the Congress and the Executive in the compensatory education evaluation effort, which you have played a large role in, has some potential for improving our knowledge in this area. It is probably on too short a time schedule again, the expectations may be too high, but nonetheless it should be helpful.

I think a third area is clearly basic literacy, which again I think is related to the compensatory education because that is where most of our concerns are. It seems to me to be a terribly important question.

Now, we have left out postsecondary education in almost all of the Institute's deliberations so far. That in part is a political judgment that we simply didn't have enough resources to cover everything. But I believe that the postsecondary institutions face an enormous set of administrative adjustment problems.

I have just come back from a conference where Alan Carter trotted out his figures as to the relationship between the number of Ph. D's that will be produced over the next decade, and the number of places for them within the traditional education system. There is a terrible mismatch. That is if things continue as they are now there will be only about a third as many positions for those Ph. D's as there are Ph. D's produced. Yet those Ph. D's are being trained rather specifically for employment in educational institutions.

My own judgment is there needs to be considerable policy research there, support for the higher education system, in attempting to make an adjustment that brings the expectations and realities of our citizens into a little better focus. I think it would be terrible if we ended up with 200,000 Ph. D's that are doing a set of things that they are way overqualified for, and it can only lead to bad situations for the country.

Mr. QUIE. Dr. Levien?

Mr. LEVIEN. I want to take a slightly different tack and emphasize again our ability to respond to the kinds of questions you ask, depends very much upon there being in existence competent R. & D. communities concerned with compensatory education, adult education

and postsecondary education, and so on, and that we are not yet in a position really to say such communities exist.

A major requirement for NIE is to establish, on a continuing basis, concern with early childhood, with elementary, with postsecondary, and with adult education, and in each case to have a process which engages the practitioner community, the education system, in the definition of issues that should be worked on.

We have to understand, really, and it is a shame in some ways, because I would like to be able to say we can produce some results, that we are in the process of establishing a viable, effective and productive education R. & D. system. But we have to invest in it, nurture it, and grow it to maturity and stability. Tell us what is important to work on, but we have to at the same time, feel the ability to work, and on the short-term problems we won't be as good as we would like. We talked to the people in the agriculture and health areas, and I think those experiences are very useful to bear in mind.

When we went to agricultural R. & D. people we talked to them about their experiences, and they said: Well, in 1961 we did this, and in 1965 we did this, and it was only after talking with them it was 1861 and 1865 they were talking about, and it took them 50 years to get a truly effective agricultural R. & D. system.

I am not saying it will take that long in education because I am sure it won't, and we have our history. But the point is we have to have the long term in mind. We have to recognize this is an investment, that the Congress is not willing to invest. If they are willing to invest at the $100-million level that is one way, but there is no way of forcing results out of that pipeline without putting something in at the other end. That is the process we are undertaking now.

I would like to see establishment of continuing reasonable, stable, programs in each of these areas where one of the functions in each of the programs is to be identification of the problems that should be worked on and that can be worked on.

Mr. QUIE. I think that you are right to point out how long it took agriculture, but I think also that we ought to, wherever possible, copy rather than discover these things all over again. It seems one of the reasons they were successful in agriculture was they tried to find out what was desired by the farmers and the practitioners out there in the field. When SAT tests indicated a reducing capability every year for 12 years and a drastic cut this year, you ought to look to the parent's desire that their children learn how to write and read and handle their math, then look at the second critical concern, which seems to be discipline in school, and take a look at the value system we have.

Thank you, Mr. Chairman.

Mr. BRADEMAS. Mr. Cornell.

Mr. CORNELL. Thank you, Mr. Chairman.

I was interested in Mr. Glennan's response to Mr. Quie's question in regard to where he thought NIE should put emphasis. I would just like to make one observation. You were talking about the surplus, shall we say, of Ph. D.'s. In my particular field I believe it was last spring the American Historical Association Newsletter had a poll of graduate institutions that granted Ph. D.'s. If I recall correctly, the figure, I think it was about 62 percent of the institutions that re-

sponded, and they indicated they would have somewhere around 3,600 Ph. D.'s or Ph. D. candidates going into the field. Those same schools indicated they would have about 300 openings, so if you just limit it to that, it is about 12 to 1, which is a much worse figure.

I must say, of course, that the people of the Eighth District of Wisconsin helped somewhat by opening a Ph. D. position in history as a consequence of my election.

I noted also, Mr. Glennan, in your statement on page 2 you listed a group of obstacles as far as the Institute is concerned, about which you say the Institute has been able to do very little.

Now I have a suggestion for the third one, but it would smack of partisan politics and I won't go into that, but in regard to the second one, you refer to the rules, procedures, guidelines, and manuals, and such, and have you any suggestion on how this might be removed? I was just wondering if you had any suggestion?

MR. GLENNAN. I am working on that, sir. One of my activities in my current capacity at the National Academy of Sciences has been to examine the grants and contracts processes. We are trying to make some recommendations to the executive branch and possibly to the Congress. We are involving the Congress in our activities.

My own sense is that most of these procedures grow out of congressional intent and involve very valid public policy concerns. The rules and regulations are intended to promote equity in the treatment of possible claimants on Federal funds, or to make sure that public information is available and so forth. But that the implementation of those rules has often been very poor.

There is one place where I might make a suggestion. I seriously thought about putting it in the testimony and did not. One of the very difficult problems for the Institute is communication with the field. NIE has been severely hampered by the way in which the advisory committee act has been implemented. I don't believe it is necessarily again the act itself, but it is the implementation.

It turns out that if you want to have a committee to advise you for more than one meeting, and that committee is going to give collective advice, not a series of individual opinions, the process of appointing that committee involves seeking the approval of the Secretary of HEW as well as the approval of OMB. Since there has been a general executive department policy in keeping with the intent of Congress of reducing the number of advisory committees around the Government, these procedures have had a very inhibiting effect upon the way in which NIE can carry out its business, and has required very long time periods to get those committees appointed. I would like to see some way of breaking these procedures.

I have no problems with openness, and I think the meetings ought to be open. I have no problems with announcements and all that sort of thing. But it is the appointment process. If this committee saw fit to specifically authorize the use of committees subject to some very specific rules that would meet the intent that the Congress has in the Advisory Committee Act, I think that would be extremely valuable to promote the interaction with the field.

Mr. CORNELL. You mentioned previously, of course, a little emphasis on the oversight. But I was wondering whether you had an implication there that you thought it might be better if we had a separate Department of Education, if you can respond?

Mr. GLENNAN. I really have no very strong feelings there at all. The issues are certainly far beyond NIE.

Mr. CORNELL. I notice two of those obstacles you mentioned are really connected with the community of educators, I suppose you could say, and it would appear there has to be a better relationship between NIE and the educational community to resolve that.

One other thing that struck me, and that is Dr. Levien talked, if I recall correctly, about 25-percent increase in authorization, and you come along, Mr. Glennan, with the suggestion of 5 to 10 percent, and that is quite a difference there. Would you care to comment?

Mr. GLENNAN. Mine is conditioned more by what I think the political realities are than the capacity of the Institute to spend funds wisely. Nonetheless, I am not completely convinced about NIE's capacity for rapid expansion. I think it is terribly important to realize NSF and NIH and any of the agencies we have come to consider as the good research support institutions had fairly long periods of relatively low level of funding while they got themselves together, while they evolved these procedures.

Now, I was guilty of rampant optimism in my first 2 years at NIE. I shared, at least, in the decision as to the size of appropriations that we sought. I now think that that was perhaps the single worst decision that I made, or participated in while I was there.

I think it was a very natural decision but what I think really is required is a period in which the Institute gets itself together. This is supposed to be a rare institution of quality, something that all of you, whatever the party, wherever you come from, look to as an institution that can be trusted in the way it does its business. It can be trusted in the way it presents the results it has sponsored. It can be trusted in the way it chooses its performers. Creating such an institution simply does not happen overnight.

The lower funding level I talked about is intended to eliminate as as much of the controversy over funding levels as possible and give it stability to allow it to develop.

Mr. CORNELL. I notice you stress stability. Dr. Levien, what about your 25 percent? Do you think they can use that?

Mr. LEVIEN. I had the rampant optimism that he had, but I have not had it tempered by 2 years of practical experience. My figure was simply there as an upper bound, which comes out of the experience with other Federal agencies, that one couldn't expect to increase it any more than that rate, but simply talking about authorizations as opposed to appropriations, you might take the optimistic view and perhaps we will take this path into the legislation and at least open that up as a possibility or leave it open as a possibility.

I agree with Dr. Glennan, I would much rather see a reasonable stable appropriation's policy or path for the next few years than one which was more fluctuating in character and uncertain.

Mr. CORNELL. Thank you, Mr. Chairman.

Mr. BRADEMAS. Before calling on Mr. Pressler, I would simply like to take this opportunity to welcome some guests in our hearing room this morning, members of the Parliament of Italy, who are, I understand, in Washington this week.

I might say to our Italian colleagues that you are in a hearing on a legislative proposal, the purpose of which is to continue the Federal

agency for the support of research in the field of education, and this is a subcommittee of the Committee on Education and Labor of the House of Representatives.

This committee room is the home of the committee of the House which handles legislation affecting education at every level, and also the relations between labor and management, and we are hearing witnesses, experts in the field of educational research.

I am sure you already have had an explanation of the separation of powers system, which means that we like to think Members of Congress have something to say about what happens to the laws as distinguished from picking up the telephone and asking the Government downtown what it is we are supposed to do.

I am glad to recognize Mr. Pressler.

Mr. PRESSLER. Thank you, Mr. Chairman.

I am interested in the organizational structure at HEW. In your experience, how does NIE relate to the rest of the education division, and what ability does the NIE Director have to reach the Secretary of HEW directly, or is it necessary that he ever does? Does it depend on the mix?

Mr. GLENNAN. I can only speak from personal experience. I had no difficulty in reaching the Secretary any time I felt it necessary. The NIE as I recall, was considered one of the seven, principal agencies on at least an organizational parity with the Social Security Administration and the Office of Education.

The intent of this Congress in setting up the Assistant Secretary was always firmly honored by the two Assistant Secretaries I served with, that intent being that the Institute have some independence and ability to get directly to the Secretary and to his staff.

We enjoyed throughout my tenure excellent relationships with the staff agencies within HEW. It was not that we never had any problems. There were often misunderstandings. They were the normal ones associated with any department that employs 100,000 people. I don't know if that answers your question, sir.

Mr. PRESSLER. Well, I guess the Director of the office would have the rank similar to the Deputy Assistant Secretary?

Mr. GLENNAN. There is in Assistant Secretary for Education in HEW.

Mr. PRESSLER. Right, but I mean what would be the rank in the organization?

Mr. GLENNAN. It is an executive level IV position.

Mr. PRESSLER. Which would make him the same as a Deputy Assistant Secretary, is that right?

Mr. GLENNAN. No; it is a rank above Deputy Assistant.

Mr. PRESSLER. So it is between Deputy Assistant and Assistant Secretary.

Mr. GLENNAN. I am sorry. Are you talking about Director of NIE?

Mr. PRESSLER. Yes.

Mr. GLENNAN. The Director of NIE is an executive level V, and there are a few Deputy Assistant Secretaries, I believe, that are executive level V's. Most of them are not. The positions, or the rank that are called for in the laws do not seem to me to bear very much relationship to the authority that is exercised by these people. For example, this particular piece of legislation authorizes the Director of

NIE to make quite a few decisions. In principle, if the Director wants to, he is able to make decisions that no Deputy Assistant Secretary in the entire HEW could have anything to do with.

Mr. PRESSLER. From an organizational point of view, should the Center for Educational Statistics be separate from both OE and NIE?

Mr. GLENNAN. I guess I have a conditional answer to that. I would say that if it were possible to see that adequate resources are made available to that center so it could have the kind of analytical capability that the Bureau of Labor Statistics has, having an independent statistical agency is highly desirable and that the Center ought to seek to attain that status. However, the Congress and the Executive both have been unwilling to give that kind of resources to that center, and if it is not going to have the kind of resources needed for that analytical staff, then I would make it a part of the Institute. I think it would be a useful way to proceed, and I would advocate that if you can't move for the BLS type of model.

Mr. PRESSLER. Those are all of the questions I have.

Mr. BRADEMAS. Mr. Hall.

Mr. HALL. Thank you, Mr. Chairman.

First I would like to thank both of you this morning for your fine testimony. I will direct my question at you, Dr. Glennan.

In the course of your remarks you had mentioned, I think very closely, if I remember correctly, what teachers are going through out there. You mentioned something to the effect that we should know what teachers are going through out there, and I think it was followed up rather closely by a remark in regards to administrators, and I don't know whether you were trying to connect the two, and did I read something of an implication that maybe teachers are being beaten down by the administration, or restricted, or did you mean that, or would you tell me what you did mean?

Mr. GLENNAN. Sure.

I certainly didn't mean to say that teachers were beaten down by administrators, or that one or the other is more important. What I was trying to say was that they operate to different incentive systems, that they have different kinds of goals in mind, that, at least in my experience, their emphasis typically is on different problems, and that policy tools available to them for dealing with these problems are very different. That is, a teacher has only the resources in the classroom or resources that can be obtained for the classroom and has to operate within that environment. The administrator presumably has a larger set of resources, but does not have the same kind of direct attachment in the classroom, he does not have direct authority, by and large, to tell a teacher how to go about doing his business.

Any kind of local research capability has to recognize those two different roles and find out where you should, let's say, place authority for a local research operation. Should it be under the control of teachers or under the control of administrators or should authority be shared in some fashion? That is why I say we need experimentation or pilot tests, before we go forward with any of the kinds of matching grants programs Mr. Quie was talking about.

Mr. HALL. Very good. I think I can speak for the committee and say we have a great deal of optimism, too, so I assume this morning we have a room full of optimists.

Thank you.

Mr. BRADEMAS. Mr. Pressler has another question.

Mr. PRESSLER. A brief question. I want to address the issue of where the handicapped and vocational research should be under the bill. As I understand it, it is now in the Office of Education as opposed to the Institute of Education. Should it remain there? Is it getting proper priority and would it get a higher priority if it were over in what used to be your office?

Mr. GLENNAN. Well, I think that, you know, the priority would depend very much upon what the legislation said and what the Appropriations Committee said.

In my opinion, and I can't speak for the Institute so I can just speculate, it would be very hard for an Institute that has a budget of $70 or $80 million to absorb two research activities which I think total in the order of $80 million and not feel an awful lot of pressures to move some of the moneys away from those very large efforts into the rest of the program I really think that would be natural.

But I think that maybe is not the issue. I think maybe the issue that the committee ought to be trying to deal with is whether, in the context of the problems of the handicapped or of vocational education, the Federal role has not been so large and so direct in financing those activities, that the coupling that comes between the research and the programs is important and therefore it may make sense to retain that coupling within OE.

My perception as I ran the Institute, was that on the whole the Institute related rather more closely to the State and local authorities who have the responsibility for carrying out education in this country than it did to the Office of Education which has a relatively minor role in support of elementary and secondary education. So we tried to deal more directly with the field and placed less empasis on our dealings with the Office of Education.

But vocational education and the handicapped are two exceptions to the general lesser importance of the Federal officials.

My impression is that the handicapped people have done an excellent job of coupling research with their entire program and unless there is some reason to feel that that research is not being done as well and with as high a quality as it might, or that there are constituency pressures that are destroying it, I don't think I would ever advocate changing it.

Mr. BRADEMAS. Gentlemen, I wonder if you would be willing as I now turn to call on the three members of our panel to come up, just to take seats at each end and let the three panelists sit in the middle and perhaps you can then add any comments you wish to make and again it must be obvious from our questions how much appreciative we are of your testimony.

Next we shall hear from three outstanding American authorities on educational research, Dr. William Turnbull, president of the Educational Testing Service at Princeton and Dr. George Weathersby, professor at the Harvard Graduate School of Education and Dr. James Gallagher, director of the Frank Porter Child Development Center, University of North Carolina, formerly the Deputy Assistant Secretary for Planning, Research, and Evaluation at HEW.

Gentlemen, you are all three old friends of this subcommittee and we welcome you here and we are interested in hearing what you have to say.

The Chair observes it is just approaching 11 o'clock and if it would be possible for you to the maximum extent feasible to summarize your statements, then we shall have an opportunity to put questions to you.

WILLIAM TURNBULL, PRESIDENT, EDUCATIONAL TESTING SERVICE, PRINCETON, N.J.; GEORGE WEATHERSBY, ASSOCIATE PROFESSOR, HARVARD GRADUATE SCHOOL OF EDUCATION; AND JAMES GALLAGHER, DIRECTOR, FRANK PORTER GRAHAM CHILD DEVELOPMENT CENTER, UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL, SEATED AS A PANEL

Mr. BRADEMAS. We will begin with you, Dr. Turnbull.

Mr. TURNBULL. Mr. Chairman, members of the committee, it is a distinct privilege to testify before you today. I have entered into the record a copy of my extended remarks so I will be glad to summarize those comments in which I view NIE from the perspective of someone working in an educational research organization that is deeply committed to the kinds of actions that can be taken to improve the quality of education and educational research in this country.

I have come here today for two reasons. First, I want to express my view to the committee that NIE ought to be a very important and indeed an essential part of the Federal structure and that it deserves strong moral and financial support from the Congress and the administration.

Second, I want to propose a procedure for focusing its work sharply on the problems that it ought to be examining.

One of the serious problems we must attempt to solve is simply the gulf between the several groups that have a vital stake in the health of education in the United States. On the one hand there are the people in the educational research community who have phased in enthusiasm for educational research and development.

But on the other hand we have to acknowledge that educational research is held in very low esteem by the public and by many educational practitioners.

The result is that at this point there is no well-developed constituency for educational research and development and no defined area of agreement on what the priorities ought to be. The more scarce the resources for education or for research, the more urgently we need to call our shots carefully rather than scatteredly.

We do need, I believe, a well-funded Federal agency, NIE, that will give sustained long-term leadership to educational research and development.

I would strongly support the idea that NIE requires a level of funding that will allow it to take a position of leadership, not simply to sustain a level of operation that has been inherited from the past. Such an investment will, I am convinced, pay off handsomely.

As part of this process of assuming a leadership role, I would hope that NIE would take steps to draw into a new coalition of discussion and action representatives of what I think of as the four constituencies that have a real stake in the health of educational research. Of course, the educational research community itself is one such group.

A second group, however, is composed of the agency in Washington primarily that administers the funds under which research is carried out.

A third is the legislators who are attempting to find and continue constructive programs of education.

Fourth, I would cite the educational practitioners, the superintendents, the principals, the teachers, the people who are themselves caught up directly in the processes of education including most certainly the students.

In my extended remarks, I put forward a proposal that there be a yearlong national inquiry into education, an inquiry that would be intended to hammer out a set of priorities and programs behind which all four of those groups could unite to make research more effectively directed and more broadly useful.

I think that the inquiry ought to draw heavily on leadership elements from the four constituencies. It should be intensive and sustained, culminating in a seminar of perhaps 6 weeks' duration to bring useful specificity to the recommendations. It should be seen in short, not as a trivial exercise but rather as searching reexamination of what we want our educational system to accomplish and how moneys can best be spent in order to accomplish the improvements we would all like to see.

I am aware there have been similar efforts in the past, but I think they suffered from the fact that they have been conceived on too modest a scale. The gap between the several groups with a stake in the problem is too great now to permit a business-as-usual approach to succeed.

We need to do something new, we need to do it now, and we need to put enough money and muscle into it to really make it work. I think it can.

Thank you.

Mr. BRADEMAS. Thank you, Dr. Turnbull. Dr. Weathersby.

Mr. WEATHERSBY. Mr. Chairman, members of the committee, members of the staff, and ladies and gentlemen, I am pleased to respond to the committee's request to offer this testimony on the reauthorization of the National Institute of Education.

I, too, provided a copy of my extended remarks and will only try to highlight some of those examples and, with Bill Turnbull's sterling example of 3 minutes, that yields the remaining 2 to me, or I should try to do it in less than that.

I have a certain amount of intrepidation of getting the chairman's wrath in being a member of the faculty and determining problems of the colleges. It seems to me that the problems I focus on have to do with the concept of education research and not the current authorizational structure process or NIE.

It seems there are four assumptions made in the area that ought to be questioned.

One is the question of discipline of education, and I think much of our distraught over the difficulty of the assumption there is a discipline of education.

A second assumption is that the most important learning occurs in or through schools, and the third is that research and development is a linear process or pipeline, if you will, starting with basic research and

going through development and demonstration and dissemination inexorably leading to its implementation, which defies reality. It is not about personal development of political values or moral judgments and a broad social awareness.

I think that these assumptions have been made through limitations that constrained our imagination and creativity, and instead I suggest that we consider a slightly modified and alternative view of the world that we should establish a broad national policy objective to, first of all, create a climate to facilitate the learning choices by individuals of all ages, and we should encourage a variety of institutions to respond to the learning demands of children and adults, and third, we should support basic research in the traditional disciplines that will focus on the information needed by individuals and organizations to make effective choices, and on the possible Federal role in a learning society. From the latter perspective, I strongly and personally endorse the reauthorization of NIE and provision of substantial Federal support to enable the Institute to carry out its then essential mission.

The text goes into some detail in dealing with each of these assumptions, which I won't take time with today, unless it is of pertinence, but I will say that using NSF and the National Institutes of Health, and of mental health as a model for the founding of NIE, I think, created a point of departure that was unfortunate. Both NSF and NIH are basically disciplined bases that you have some kind of intellectual structure to approach the solution of problems within, that you have some bases for decomposing very complex problems in to components in which can be worked on, which can be resolved, and then can be added back together. I don't sense that there is any kind of discipline structure that gives that power in the field of education.

I think one of the difficulties that our problem solutions don't add up because they can't be divided up the way we do in the first place. The assumption that the most important learning occurs in and through schools seems to me to be inherent in the congressional charge in the legislation. I think it ought to be questioned at two levels. First, is there convincing evidence that the learning most important to the individual or to society occurs primarily in schools? Second, if the answer to that question is yes, is there convincing evidence that the Federal Government is particularly effective in changing the substance and consequences of decisions by local school boards, administrators, teachers, parents, and students?

Personally, I would answer both of these questions in the negative, but I think those are the questions we should be asking and seeking evidence on.

I think we ought to view learning and schools as separable. We should develop means of identifying and of reporting learning whenever and wherever it occurs and use the schools as learning center institutions, along with many other institutions with similar purposes, including public libraries, museums, art galleries, aquariums, planetariums, colleges, personnel offices of corporations, fringe benefit programs for unions, day care centers, public information offices, and churches, as well as local schools, many areas of government, and in a proper perspective, some elements of business and industry.

The assumption that research and development is a linear process from basic research through development, demostration, dissemination

and implementations seemd to me to defy realities of education. Borrowing the NIH model of developing a new vaccine, or a new surgical technique, is really inappropriate in education of a number of reasons.

First, there is little agreement among constitutent voters, parents, administrators, and teachers on the definition of the problem. There is usually little evidence that any single remedy is uniquely suited for implementation in any school. There is usually little incentive for teachers to use new materials or methods, because their tenure and salaries are determined on other basis, and there is usually little local political support for spending more money on expensive, supplementary materials developed by federally funded research projects.

The fourth assumption that we are dealing with politically neutral and broadly supported areas such as basic skill development should be emphasized over the more sensitive areas of personal development, political values, or moral judgments; and broad social awareness circumscribes the utility and acceptability of federally supported R. & D. By choosing what is "safe" we often miss what is important to voters, parents, and school officials, and indeed, individuals.

What I am arguing basically is that our implicit assumptions of the past severals years have unnecessarily constrained our imagination, our creativity, and therefore the impact and broad political support for NIE as a focal point for R. & D. in education. Furthermore, I am suggesting that we should separate our concerns for individuals learning from our concerns about schools as institutions, thereby creating a climate for learning by individuals of all ages, and encouraging a variety of institutions or programs to respond to the learning demands of children and adults.

I believe we should move towards a time when families and increasingly individuals would be enabled to assume some responsibility for their children's and their own learning. This would require some structure in society to provide to parents and individuals the following: an assessment of a person's current skills and knowledge, which until recently has been a secret from the parents, kept from the parents, and advice on the skills and knowledge needed for certain careers and for effective functioning in the American society, which we are just beginning to learn about, and alternative means of skill and knowledge acquisition, and recent experiences with the cost and effectiveness of each, and credentialing of individuals when predetermined minimum skill and knowledge levels are reached, and information of use to potential employers, and/or further educational oportunities. In this way, a combination of individuals' needs, wants, and expectations would be reflected in individuals' demands for learning opportunities in a very individualistic manner.

To this point, this discussion has focused on elementary and secondary education because they have been the major emphases of NIE. However, during the next 20 years, as the enrollments in elementary and secondary schools plummet, the major growth in the demand for education will be in the adult population and, in my view, a major emphasis of Federal involvement should be placed on adult learning. The "failures" of schools in the 1960's, which partially motivated the creation of NIE, have resulted in the adults of the 1970's and the next 40 or 50 years and, if they are to be reached at all, it will be through adult learning. Finally, the studies of parents and children learning

together suggest that a concern for adults and children learning jointly will be more effective than an exclusive focus on one or the other.

Increasingly the emphasis on individual responsibility for learning will require an increased variety of programs, institutions, and settings to which individuals can turn to further their own or their children's learning. These settings could be public libraries, museums, art galleries, aquariums, planetariums, colleges, personnel offices of corporations, fringe benefit programs for unions, day care centers, government agencies' public information offices, churches, as well as local schools encouraged to offer diverse and substantively differentiated programs. This view of the future raises questions of finance, quality control, accreditation and numerous other issues, many of which have been discussed though not resolved at the postsecondary level.

Creating a climate of learning by individuals of all ages and encouraging a variety of institutions to respond to learning demands of individuals will require both more information than we now have and a consideration of alternative Federal roles—both of which are worthy topics for NIE's agenda. This perspective of R. & D. for education suggests that the following types of information would be particularly useful to individuals deciding upon their own or their children's learning:

What categories are useful to describe skills and knowledge?

What measures are meaningful to assess skills and knowledge?

What is the relationship between career patterns and skills, knowledge, attitudes, and other personal attributes?

What are the cost and effectiveness of alternative means of skill and knowledge acquisition for different types of individuals?

What types of credentials are useful to employers and meaningful to individuals?

How are various organizations—schools, libraries, museums, firms, Government agencies, et cetera, likely to respond to individual learning demands?

How can political accountability for public resource use be maintained while expanding individual choice?

Some of these topics are now being addressed by NIE and others could readily be addressed. The major point, however, is that this approach gives an integrated way of decomposing problems and asking questions without assuming a discipline of educology. Each of the major information areas should be investigated by researchers in the basic discipline or the organizational settings in question. This approach focuses on learning and not schooling. This is an iterative and not a linear process that hopefully leads to insight, information, and some predictability. This is a process that enables individuals and organizations to energize their own political and social values more effectively. Each person's purpose is paramount.

From this perspective, the Federal role in education needs to be considered broadly and critically through such questions as:

Are there social benefits to the individual learning that occur in addition to private benefits and, if so, what are they?

How can social justice be furthered through individual learning choices, for example, how to prevent institutional or financial barriers to learning?

How can diverse learning opportunities be stimulated in the midst of our present monopoly situation at the elementary and secondary levels?

To be politically feasible, how can the decline of some institutions be encouraged while the personal careers of staff and students are protected?

How can valid consumer information be provided to all concerned?

How can meaningful research be stimulated within ongoing organizations?

What financing and eligibility policies would be most efficient and effective?

That is a very quick sketch which leads me to conclude that there are at least four priorities that I have out of this. One is that I believe that Congress should reaffirm commitment to research and development that is relevant to teaching and learning through NIE and through other policies. That Congress should establish a broad policy objective for an educational future based on individual responsibility for learning in multiple and diverse settings as opposed to schooling. Third, that NIE should develop its research agenda and priorities from this broad learning perspective and set aside the constraint assumptions upon which I believe it is operated. Fourth, other educational legislation should reflect the same policy perspective separating learning and schooling with this transition emerging over the next several years.

Thank you.

Mr. BRADEMAS. Thank you, Dr. Weathersby.

Dr. Gallagher.

Mr. GALLAGHER. Thank you very much, Mr. Chairman. It is a delight and honor to be here to testify again on the issue of the National Institute of Education.

I would like to emulate my distinguished colleagues in brevity, but my cultural heritage makes me dubious I can do it, however, I will try as best I can.

I would like to address the issue of the interaction of Government and research and draw somewhat on the experience of 3 years here in Washington.

I note with great pleasure you have on your witness list one of my former bosses, Commissioner Harold Howe. He often said that one of the problems of education in Government was the lack of interaction between the calendar for politics and Government, and the calendar for education. After almost a half a decade of struggling on this issue, you come up with the solution of forward funding as a way of trying to straighten out the calendar. Unfortunately, we need a similar bridge between research and the political process. That bridge we don't have.

Let me mention some of the specific interaction problems that get us into trouble, and I think account for some of the problems that NIE has had over the past 4 years.

The political process wants quick results to important questions, but significant research findings emerge only over a long period of time and cannot be thrown into gear for immediate results. The political process wants unambiguous answers that are easily understood; yet

the research process must take into account the complexity of human behavior and the complexity of human institutions. It is highly unlikely that any research answer to a single project will be simple and not surrounded by a multitude of qualifications and conditions.

Finally, the political process would like to have results that are in tune with current political beliefs whatever those beliefs might be, but the very purpose of research is to seek for truth, and truth is remarkably neutral in political conflicts. In this regard, then, research becomes politically unreliable and unpredictable.

I went back and looked at the testimony I gave 5 years ago on this particular subject, trying to avoid a situation that I thought might happen. I urged that what was likely to happen was a wide range of unrealistic expectations on the part of NIE that would be presented along with extremely limited resources. I urged the National Institute of Education to at least put a price tag on the various major educational research efforts that could be undertaken so that the consumers and legislature could see what $20 million can buy, what $80 million can buy. Then we could observe the limits of our purchases and scale down our expectations.

One can walk into a supermarket with a long list of gourmet foods, but if you have only $5 in your pocket you won't come back with a very impressive list of products. We know that the cost for a major curriculum program is $10 to $15 million, and we know that a major topic such as financial reform of the schools would cost $5 million, and we know that major innovations in media and technology such as the "Electric Company" can cost $10 million to $15 million. One can run out of $80 million quickly with that kind of price list.

I must admit I was dismayed at the current authorization level of $80 million. Such a figure gives sorrowful evidence that NIE is still in a Catch-22 position, that is, it won't get any more money until it proves what it can do, and it cannot prove what it can do unless it gets some more money.

Now; I would much prefer and strongly recommend to this committee that the statement "such sums that are required to carry out the purpose of this bill" would be substituted for the specific financing figure in the authorization level now being presented.

One of the serious problems in education is not using what we already know, and there is no clearly identifiable bridge now available between what we know and what we do. One of the major contributions that the investigation of just such organizational stragegies so we can get what we know into practice.

For example, in the area of the handicapped, which I am most familiar with, we have taken some of the learning in the field of psychology from the past 30 years and put it to work in what is called contingent positive reinforcement, or giving up rewards and praise to youngsters immediately upon their producing the desired behavior.

What this has done is to allow us to teach autistic children who are mute to be able to talk, and to take the severely handicapped children who were given up and bring them up to a level of performance that allows them to be able to learn and to take care of themselves in many different dimensions.

Now, these procedures, when applied to educational situations are almost always successful. Unfortunately for us and for the public

school systems, what we were talking about is translating that kind of idea to 2 million elementary and secondary school teachers, to 18,000 separate school districts, and to 50 very diverse and distinctive States, so the ability to get knowledge from the research to the practitioners has been limited, and it is refreshing to see that the issue of dissemination is given such prominence in the NIE plans, and in legislation now pending.

Let me make a few brief recommendations. I would certainly support Dr. Turnbull's notion of a setting up of priorities based upon the widest possible development and consumers input on those priorities. But once those priorities are made, we are in a sense commiting ourselves to 5 and 10 years of work. That is what it takes to really produce something out of this area. What it means is you can't have a new set of 5-year priorities next year, not without additional resources. It is the attempt to try in every year to take care of the new priorities that come up each year that really gets the program into great difficulty.

So these were the comments I would like to make briefly, Mr. Chairman. First, that we resolve to invest in large and meaningful projects that carry hope for some answer to significant problems rather than problems chosen because they are small and inexpensive.

Second, we can leave the researchers alone long enough to assure they accomplish something without being reviewed every 6 months to see if they are on track with the current priorities.

Third, that we design methods for extracting more utility from past research. I think we know a great deal in the fields of medicine, psychology, sociology, and anthropology that can be drawn and applied to the problems of education. We have not systematically gone about a sustained effort to try to extract that for particular educational problems.

Finally, we need to build a regular and consistent delivery system as part of the educational establishment to ensure that new and validated ideas can be inserted into the bloodstream of the educational establishment.

Now, that is something that has not been done either, and I will be glad to elaborate on some work we are doing along those lines, if it is of interest to the committee.

Thank you very much.

[Prepared statements of the panelists follow:]

PREPARED STATEMENT OF WILLIAM W. TURNBULL, PRESIDENT, EDUCATIONAL TESTING SERVICE, PRINCETON, N.J.

Mr. Chairman and members of the Committee: I count it a distinct honor to appear before this Subcommittee which is addressing questions of the most fundamental long-range importance to American society.

My name is William Turnbull and I am president of Educational Testing Service (ETS), a non-profit organization with headquarters in Princeton, New Jersey, and other offices across the country. Most people come into contact with ETS in connection with one or another of the testing programs we administer for school and college associations: the College Board exams, Graduate Records, Law School tests and so on. But ETS is also a large educational research agency, perhaps the largest, and accordingly we are greatly interested in and concerned about public policy in this area.

Most of ETS' research projects are supported by client groups, by foundations, or by ETS itself. Let me say immediately, however, that ETS has over the years been awarded many contracts for educational research from federal agencies,

including the National Institute of Education. Of the research projects we are now pursuing—amounting to a total of about eight million dollars this year—about a third are federally supported and some seven or eight percent by NIE. Accordingly, we clearly have a degree of self-interest in seeing a strong federal research effort. We also, perhaps, have an unusually good opportunity to see and reflect upon the ways in which educational research is pursued in this country and how it might be made more effective.

In my judgment, the dollar investment that this country chooses to make in educational research is indeed important, but dollars are not the whole story.

A program of educational research in all its stages—conception, development, experimentation, and, if useful, incorporation of new ideas into the system—must be informed by purpose and by recognition of the relevance of each part to the whole. How does one create such a sense of purpose and coherence? Through the collaboration of all interested parties—researchers, practitioners, legislators, parents—in the establishment of priorities, the development of programs, the fitting together of individual projects, and the final cooperative effort that makes the useful product part of the system. We should not gauge the worth of any research by immediate utility; we must, however, consider all research efforts as part of the overriding goal to make education better for all who participate in it. And NIE can play a vital part.

The level of support should be adequate to maintain and nourish an agency of leadership, and support of that character needs to be more than an annual appropriation. It needs to include some appreciation of the vital nature of the experimental work that is going on in the schools, colleges and research organizations where the money is being spent, and of the essential role of an agency at the national level to monitor the process.

This is a matter on which I have expressed by views before, and I should like to repeat some comments from a letter which I sent over a year ago to a number of members of the Senate and House when NIE's funding was under serious debate:

"NIE was and is an excellent idea. The specific focus of the Institute on stimulating, evaluating and disseminating first-rate work on research and its applications was hailed in educational circles as a basis for new hope that long-range and intermediate-range improvements could indeed be discovered and put to work in the nation's largest 'business.'

"Much as I would like to believe otherwise, systematic work on the improvement of the educational process has been sorely lacking in the past. One good reason is that money for such research and development work has been in pitifully short supply. Any industry that allocated so small a proportion of its annual budget to research and development would be regarded as hopelessly archaic in its practices and would rapidly become obsolescent. But the shortage of funds has not been the only problem. The other large obstacle has been the lack of any agency with a specific mandate to stimulate research, to monitor findings, and to spread the word about successful improvements, systematically and over a period of years. NIE was hailed by me and by the research community and by innovation-minded practitioners all over the country as potentially that agency, with national scope and a long view.

"Against this backdrop of hope, I and thousands of my colleagues across the country have been dismayed at the fact that this promising idea has essentially been denied an opportunity to prove its worth through the totally inadequate level of funding that has been made available to the Institute. In the federal budget, NIE's share is microscopic, but its task is fundamental to educational progress in the United States." (end of quote)

What should NIE do to fulfill its high promise? How should the agency act to win the confidence of the several communities that look to it for assistance and above all for leadership? My main suggestion today is that those very questions ought to be the basis for NIE's foremost undertaking. Let me call such a project a National Inquiry in Education, which (conveniently) has the initials NIE.

My reason for suggesting such a National Inquiry is simply that for a variety of reasons, there is little confidence today in the value of educational research. Practitioners—teachers and administrators—see little emanating from research publications that they can use directly in practice. Legislators, seeking to take responsible action in the critical area of education, feel that the research fails to either address important problems or to provide answers that can be used in the formulation of public policy. Taxpayers question expenditures for research at all levels from local to federal.

The practitioners seem to be saying, "You're giving us answers to non-problems," while the researchers reply, "You're asking for answers to questions that nobody knows how to solve," and the public chips in with "Okay, in either case we'd just as soon save our money."

Educational researchers need not accept all blame for the circumstances in which they find themselves. They can justly lay claim to a body of good and important work. They know of their earnest attempts to communicate broadly with others and of the apparent difficulty of engaging their attention. The point is not to accept or affix blame but rather simply to recognize that something is wrong that needs correcting.

It is clear that educational research can hope for no constituency of advocates outside itself until someone takes constructive steps toward change. Until educational research is perceived as useful by others, it must expect all the afflictions accompanying low public esteem, including a starvation diet.

The problem is serious enough to warrant a national re-examination and urgent enough to merit immediate action. Although the situation will not be remedied overnight, it is possible to take first steps now toward a new view of research needs and approaches.

As part of the process, we must accept the proposition that the educational research community cannot by itself reach an adequate definition of the issues that need attention or of the processes needed to address them. We need rather to form a working coalition of the principal parties at interest to explore the problem in depth, to establish priorities, and to propose solutions.

PROPOSAL IN BRIEF

What I would suggest is a series of working conferences and forums (to be called collectively the National Inquiry in Education) held during the coming academic year, at which at least four key groups can seek agreement on priorities and procedures for educational research in this country.

The key groups I would identify, at least tentatively, as:

1. The *educational research community*, taken broadly to include the research workers themselves in education, psychology, sociology and economics, their colleagues in other disciplines who concern themselves with educational questions, and other leaders who have responsibility for institutional commitment to research efforts;

2. The *administrators of funded educational research* in federal government agencies (notably HEW and its constituent parts, NSF, OMB, etc.), private foundations and other structures;

3. *Legislators*, especially those on the education-related committees of the House and Senate, and particularly including the legislative aides who are engaged with their principals in drafting laws that will affect educational research and practice; and

4. *Teachers, administrators and other concerned groups:* education practitioners seeking help from research, students who can supply a unique perspective, minority group members, citizens' groups and others who can help and are willing to do so.

It should be possible to assemble a core group of 20–25 such people who would attend six to eight working conferences, with another 15–20 who would attend some sessions and not others. Relevant associations and agencies should be asked to help in identifying the most appropriate individuals and to contribute position papers. Most meetings could be held in Washington, D.C. Between the second and third meetings there might be a larger single-day conference of perhaps one hundred people drawn from the same four basic constituencies, to explain the purpose of the Inquiry and invite wider participation. Again, shortly before the end of the seminar sessions, the larger group should be convened to review progress and tentative conclusions and to provide further input. Finally, the core group would participate full-time in an extended session of perhaps six weeks during which they would review the alternative courses of action, arrange them in priority order, and propose rough allocations of money for their pursuit over the years immediately ahead.

Federal support should underwrite travel and related expenses plus the cost of a two or three person coordinating office, which might be directly under the aegis of the National Council on Educational Research.

It would be too much to expect that such an Inquiry group would be unanimous in its recommendations. On the other hand, as sustained joint effort by capable

individuals from all segments of education who would come to understand and be influenced by their several viewpoints, leading to a series of concrete recommendations for action—recommendations which could be implemented—would be of enormous help. The recommendations, reported to the various constituencies and to the public at large, would of course be challenged and debated. All to the good! In the absence of persuasive countervailing proposals, they might be expected to form the basis for a research program behind which we could muster broad support of the kind that is now—and has been—conspicuously lacking.

The influence of the National Inquiry in Education would derive primarily from the quality of its membership and from the cogency of its recommendations. The Inquiry would be a forum. Its product would be important but so also would its process. Its views should flow from a broad concern for educational and societal progress but its recommendations should be for specific, practical action steps.

The result should be a statement of priorities for research that makes sense to all parties, recommendations for whatever new procedures or structures are needed to improve communications and feedback, and provision for evaluation and monitoring of the process. At best, the Inquiry should lead to a new respect among the several parties, a shared perception of needs, and an action program that could and would be widely endorsed.

It is important to say as strongly as possible that the aim is *not* to hammer out *the* national substantive program of research, nor to diminish a creative diversity of views. Rather, it is to provide a chance for the diversity to be recognized, for priorities to reflect this diversity and for the procedures of support and administration to be revised to give pluralism in the realm of ideas a better chance to flourish than it has in the past.

The suggestion sketched here is in very preliminary form. If there is agreement even that we *may* have a problem, the Inquiry format provides for examining that proposition and for suggesting improvements in procedures. If indeed the problems are present and as serious as I believe, the Inquiry could mark a much needed turning point. It could broaden our understanding of the present situation and bring agreement on next steps among the people whose close cooperation is essential if we are to see significant improvement.

In summary: education is an extraordinarily broad landscape. What we learn from our study of it will depend in large measure on where and how we choose to look. I am convinced that a concerted effort, focussed on discovering cause/effect relationships, will pay off. In education over the past twenty years, we have concentrated on problems of quantity—sheer numbers of young people to be accomodated in the educational system—at the same time that we sought to maintain quality—a combination which few other nations have aspired to or achieved as well. Now, in a time of diminishing population growth, we have a new opportunity to attend to questions of quality. They are not so insistent, nor so obvious, but they are vastly more important and difficult. A robust NIE is to my mind one of our best hopes for success. A National Inquiry on the priorities for research, supported by the several parties with a stake in the outcomes, could move us into a new and more confident era of study and action.

PREPARED STATEMENT OF GEORGE B. WEATHERSBY, ASSOCIATE PROFESSOR, HARVARD GRADUATE SCHOOL OF EDUCATION

Mr. Chairman, Members of the Committee, members of the Staff, and ladies and gentlemen, I am pleased to respond to the Committee's request to offer this testimony on the reauthorization of the National Institute of Education. In June 1972, the NIE was created by Congress to implement the policy of the United States to:

Help solve problems and promote reform and renewal in American education,
Advance the practice of education as art, science and profession,
Strengthen scientific technological foundation,
Build an effective research and development system (PL 92-318, Sec 405 (a)).

After three and one-half years of NIE's operation, the Congress must now reconsider not only the continuance of NIE as an organizational unit but also the basic assumptions about educational research to be conducted by NIE. I do not have the information needed to evaluate NIE as an organizational unit or its success in implementing the Congressionally established policy. Rather, I plan to focus my remarks on conceptual approaches to educational research and the role of the federal government.

While I do not know the assumptions behind NIE's priorities over the past several years, it seems to me that, despite rhetoric to the contrary, the Institute acted on four key assumptions:

The existence of a discipline of education.

The most important learning occurs in or through schools.

Research and development is a linear process from basic research through development, demonstration, dissemination and implementation.

Education is about communication and computation (basic) skills that are preferably job related and not about personal development of political values, moral judgment and broad social awareness.

I believe that all of the assumptions have serious limitations which constrain the visions and actions of NIE. After expanding on these assertions I will suggest that Congress should establish a policy to:

Create a climate of learning by individuals of all ages.

Encourage a variety of institutions to respond to the learning demands of children and adults.

Support basic research in the traditional disciplines that will focus on the information needed by individuals and organizations to make effective choices and on the possible federal roles in a learning society.

From this latter perspective, I strongly, personally endorse the reauthorization of NIE and the provision of substantial federal support to enable NIE to carry out its then essential mission.

CURRENT ASSUMPTIONS UNDERLYING NIE'S RESEARCH

Assuming the existence of a discipline of education implies that there are basic laws and theories which explain and predict the relationship of cause and effect, of action and consequence. Overarching principles and "natural laws" would enable one to decompose complex educational problems into small, discrete problems which can be analyzed independently and their results recombined into an understanding of the original complex problem. But do we have any evidence that these overarching principles and natural laws exist for education? I believe we do not. Many of the basic disciplines, such as psychology, sociology, economics, or statistics, can be used to study educational phenomena in a rigorous, disciplined manner but there is no "educology" of which I am aware.

However, NIE has assumed complex educational problems can be separated into many small, discrete research projects: that, for example, basic reading skills are separable from the diversity and pluralism of American education, the productivity of resources, the relevance of education to work, and the capabilities of state and local school systems. But I believe that acquiring reading skills is not separable from the social context of education, the efficient use of resources, the external relevance of learning to read and the capabilities of schools. Problem solutions don't add up because problems don't divide this way in the first place.

NIE was modeled after the National Science Foundation and the National Institutes of Health and Mental Health based on an assumed discipline structure like the sciences. Because education is not a discipline but is an area of application, NSF and NIH are poor models for NIE. Programs and priorities were established by NIE to reflect current issues or problems in education but this has been an unproductive way to "solve" problems. In fact, the problems of basic skills, pluralism, productivity, relevance and school capabilities are all unsolvable by the federal government. We need a concept of individual-organizational interactions and the federal role in those interactions.

The assumption that the most important learning occurs in and through schools seems inherent in the Congressional charge to NIE. However, this assumption should be questioned on two levels: is there any convincing evidence that the learning most important to the individual or to society occurs in the schools; and even if the answer to the first question is yes, is there any evidence that the federal government is particularly effective in changing the substance and consequences of decisions by local school boards, administrators or teachers? Personally, I answer both these questions in the negative. Ample evidence existed prior to organizing NIE that this assumption should be questioned. David Cohen wrote in 1972:

"Literally hundreds of studies of the effects of school resources and policies on students' achievement have been carried out since the 1920's, and they generally showed that things like spending more money, training teachers more, or consolidating school districts usually produced achievement little different than what would have been expected without these policies."

From this observation and dozens of similar assertions we should not despair that learning is irrevocably lost to American society or that we should give up on our schools. Quite the contrary, our assumption that the most important learning occurs only or primarily in schools is an unreal expectation both of learning and of schools: it does not recognize or legitimize the whole sweep of learning on-the-job, in the family, from television, or where ever; nor does it recognize that schools are only one of many social institutions that are and should be responsible for learning.

I believe that we should view learning and schools as separable, that we should develop means of identifying and recording learning where ever and whenever it occurs, and that we should view schools as learning-centered institutions among many institutions with similar purposes including libraries, museums, galleries, and many elements of government, business and industry.

The assumption that research and development is a linear process from basic research through development, demonstration, dissemination and implementation defies reality. Borrowing the NSF model of R & D in scientific instruments or computers or the NIH model of R & D leading to a new vaccine or surgical technique and applying these models to schooling inappropriate because: there is usually little agreement among voters, parents, school board members, administrators and teachers on the definition of the problem; there is usually little evidence that any single remedy is uniquely suited for implementation in any school; there is usually little incentive for teachers to use new materials or methods because their tenure and salaries are determined on other bases; and there is usually little local political support for spending more money on expensive, supplementary materials developed by federally funded research projects. For these reasons, innovation is a special god worshipped by R & D funders but often viewed as a false idol by educational practitioners and parents weary of experiments on their children.

The fourth assumption that "politically neutral" and broadly supported areas such as basic skill development should be emphasized over the more sensitive areas of personal development of political values, moral judgment and broad social awareness circumscribes the utility and acceptability of federally supported R & D. By choosing what is "safe" we often miss what is important to voters, parents and school officials. The entire substantive content of the first 12 years of American education could probably be learned by an average, motivated, functionally operational adolescent in 2 or 3 years (the fact that we don't know much about this alternative is a dead comment on our research). What more is the school board buying with the additional 9 or 10 years of schooling? What other values are important and how are they transmitted? Aren't these values relevant to our R & D?

A PERSPECTIVE OF R. & D. FOR THE FUTURE OF EDUCATION

Basically, I am arguing that our implicit assumptions of the past several years have unnecessarily constrained our imagination, creativity and, therefore, the impact and broad political support for NIE as the focal point for R & D in education. Furthermore, I am suggesting that we should separate our concern for individuals' learning from our concerns about schools as institutions, thereby creating a climate for learning by individuals of all ages and encouraging a variety of institutions or programs to respond to the learning demands of children and adults.

Currently schools are responsible for teaching, for providing a thorough and efficient education (at least in New Jersey), for meeting all the special needs of all school age children (at least in Massachusetts), for providing career or job relevant training (in most states), and for occupying the time of youth until age 14 or 16 (depending upon the state). It is both unrealistic and unreasonable for schools to try to be all things to all people. Currently local governance by elected schools boards is the primary means by which families express their educational demands.

I believe we should move towards a time when families and increasingly individuals would be enabled to assume responsibility for their children's and their own learning. This would require some structure in society to provide to parents and individuals the following: an assessment of a person's current skills and knowledge (until recently a secret from parents); advice on the skills and knowledge needed for certain careers and for effective functioning in the American society; alternative means of skill and knowledge acquisition and recent experience with the cost and effectiveness of each; credentialling of individuals when predetermined minimum skill and knowledge levels are reached; and information of

use to potential employers and/or further educational opportunities. In this way a combination of individuals' needs, wants and expectations would be reflected in individuals' demands for learning opportunities in a very individualistic manner. As long as an individual was making satisfactory progress towards an educational objective through some means, he or she should not have to attend a particular school.

To this point, this discussion has focussed on elementary and secondary education because they have been the major emphases of NIE. However, during the next twenty years, as the enrollments in elementary and secondary schools plummet, the major growth in the demand for education will be in the adult population and, in my view, a major emphasis of federal involvement should be placed on adult learning. The "failures" of schools in the 1960's, which partially motivated the creation of NIE, have resulted in the adults of the 1970's and the next 40 or 50 years and, if they are to be reached at all, it will be through adult learning. Finally, the studies of parents and children learning together suggest that a concern for adults and children learning jointly will be more effective than an exclusive focus on one or the other.

Increasingly the emphasis on individual responsibility for learning will require an increased variety of programs, institutions, and settings to which individuals can turn to further their own or their children's learning. These settings could be public libraries, museums, art galleries, aquariams, planetariams, colleges, personnel offices of corporations, fringe benefit programs for unions, day care centers, government agencies' public information offices, churches, as well as local schools encouraged to offer diverse and substantively differentiated programs. This view of the future raises questions of finance, quality control, accreditation and numerous other issues, many of which have been discussed though not resolved at the postsecondary level.

Creating a climate of learning by indivuduals of all ages and encouraging a variety of institutions to respond to learning demands of individuals will require both more information than we now have and a consideration of alternative federal roles—both of which are worthy topics for NIE's agenda. This perspective of R & D for education suggests that the following types of information would be particularly useful to individuals deciding upon their own or their children's learning:

What categories are useful to describe skills and knowledge?

What measures are meaningful to assess skills and knowledge?

What is the relationship between career patterns and skills, knowledge, attitudes and other personal attributes?

What are the cost and effectiveness of alternative means of skill and knowledge acquisition for different types of individuals?

What types of credentials are useful to employers and meaningful to individuals?

How are various organizations (schools, libraries, museums, firms, government agencies, etc.) likely to respond to individual learning demands?

How can political accountability for public resource use be maintained while expanding individual choice?

Some of these topics are now being addressed by NIE and others could readily be addressed. The major point, however, is that this approach gives an integrated way of decomposing problems and asking questions without assuming a discipline of educology. Each of the major information areas should be investigated by researchers in the basic disciplines or the organizational settings in question. This approach focuses on learning and not schooling. This is an interative and not a linear process that hopefully leads to insight, information and some predictability. This is a process that enables individuals and organizations to energize their own political and social values more effectively. Each person's purpose is paramount.

From this perspective, the federal role in education needs to be considered broadly and critically through such questions as:

Are there social benefits to individual learning that occur in addition to private benefits and, if so, what are they?

How can social justice be furthered through individual learning choices (ie. how to prevent institutional or financial barriers to learning)?

How can diverse learning opportunities be stimulated in the midst of our present monopoly situation at the elementary and secondary levels?

To be politically feasible, how can the decline of some institutions be encouraged while the personal careers of staff and students are protected?

How can valid consumer information be provided to all concerned?

How can meaningful research be stimulated *within* ongoing organizations?

What financing and eligibility policies would be most efficient and effective?

Some of these topics are also now being addressed by NIE and once again the point is not to create a list of new priorities but to suggest the consequences of adopting a new perspective toward R & D for education. Once again this structure allows decomposition and integration, focuses on learning more broadly than schooling, encourages iterative and simultaneous development, and encourages a plurality of values.

In summary, the choice I perceive is essentially between considering the future of R & D for education and the R & D needed for the education of the future. I believe that:

Congress should reaffirm a commitment to research and development relevant to teaching and learning.

Congress should establish a broad policy objective for an educational future based on individual responsibility for learning in multiple and diverse settings.

NIE should develop its research agenda and priorities from this broad learning perspective and set aside the constraining assumptions upon which I believe it has operated.

Other education legislation should reflect the same policy perspective separating learning and schooling, with this transition emerging over the next several years.

Thank you very much for your attention.

PREPARED STATEMENT OF JAMES J. GALLAHGER, DIRECTOR, FRANK PORTER GRAHAM CHILD DEVELOPMENT CENTER, UNIVERSITY OF NORTH CAROLINA, CHAPEL HILL

I am pleased and honored to have the chance to testify on the reauthorization of the National Institute of Education. This noble experiment can still be a significant tool to be used in the systematic improvement of our educational programs. To accomplish the goals optimistically set for NIE, some major changes are needed, in my opinion.

One of the most knowledgeable persons on the Washington scene in the field of education in the last decade has been former Commissioner of Education Harold Howe, III. He remarked a number of times that one of the great problems that we face in education is that there is no conjunction between the educational calendar and the political calendar. This caused great pain and sorrow to educators waiting for political decisions and finally lead to the introduction of *forward funding* as a means of bridging the gap between legislators and educators.

We need a similar bridge to be established between the research process and the political process. The differences between the political process and research makes it difficult to bring these two processes into productive inter-change with one another. The past four years are evidence of that difficulty.

For example, the political process wants quick results to important questions; but significant research findings emerge only over a long period of time and cannot be thrown into gear for immediate results. The political process wants unambiguous answers that are easily understood; yet the research process must take into account the complexity of human behavior and the complexity of human institutions. It is highly unlikely that any research answer to a single project will be simple and not surrounded by a multitude of qualifications and conditions.

Finally, the political process would like to have results that are in tune with current political beliefs whatever those beliefs might be, but the very purpose of research is to seek for truth, and truth is remarkably neutral in political conflicts. In this regard, then, research becomes politically unreliable and unpredictable.

It is the fate of research in social sciences and education that there will be no dramatic "big bang" or magic bullet as result of research discovery. This is not because the researchers are incompetent, but because the educational world is complex and the answers will come forth a little bit at a time, building to significant answers only if we are patient enough to wait for that result.

About five years ago I testified on what some of the future problems of the newly established National Institute of Education might be. I presented a potential scenario that I thought was likely, but hoped to avoid. That is, that a wide range of unrealistic expectations would be presented to the organization accompanied by extremely limited resources. I urged the National Institute of Education to at least put a price tag on the various major educational research

efforts that could be undertaken so that one could see what 20 million can buy, what 80 million can buy. Then we could observe the limits of our purchases and scale down our expectations.

We know that it would cost ten to fifteen million dollars for a major curriculum project, and that project would have a delivery time of five to ten years. We know that major studies on such topics as financial reform would likely cost five million dollars and have a delivery time of three years. We know that major innovations in media and technology such as The Electric Company cost ten to fifteen million dollars and have a delivery time of three to five years. One can break one's budget in no time at all at current levels.

I must admit that I was dismayed to see in the proposed legislation an authorization level of eighty million dollars. Such a figure gives sorrowful evidence that NIE is still in a "Catch 22" posture. That is, it can't prove what it can do unless it gets adequate resources, and it will not get adequate resources unless it can prove what it can do. I would much prefer, and strongly recommend that the statement that such sums are required to carry out the purposes of this bill as opposed to the specific dollar figure.

The sum of eighty million dollars can in no way match the fine statements of expectations in the legislation for the National Institute. We have a long shopping list, but a very small purse. The actual appropriation level for the Office of Education in my understanding is between four to five billion dollars a year. Eighty million dollars for research represents less than two percent of the total federal investment in education. But the situation is much worse than that. The federal investment in education itself only amounts to six to seven per cent of the total that's been spent on education, but very little of the other ninety-three per cent provided by state and local funds is spent on research or development or dissemination. The local pressures are all for service and for taking care of the basic needs of a straining educational system so that local and state funds cannot be expected to provide for much additional research support. What this means is that, in terms of the total national commitment in education, the NIE budget, representing the court of last resort for research innovation, is at most, one tenth of one percent of our expenditures in education.

A similar investment in companies such as General Motors, Exxon, or the major agricultural establishment would be guaranteed to put them out of business in a very brief period of time.

One of the most frequent questions asked of any research project is will it amount to anything, will it result in any finding that will improve education? The researcher faced with such questions frantically hunts around for some possible application and will try to make some answer to the question. Unfortunately for us the question is misstated; the attempt to answer, misguided. What should be asked instead is does the totality of educational research have anything to say to the practitioner and to that question the answer is unequivocally "yes". But that impact will not come from any single research study. It will come from a combination and accumulation of work that all adds up to answers in a particular direction which then gets incorporated into the educational process in a still mysterious, hardly noticeable, way similar to that in the slow changing of the spectrum from orange to yellow or yellow to green.

As Professor Getzels of the University of Chicago has pointed out, there have been many changes in education which can be linked to past educational research. In the first decade of this century teachers stood on platforms and talked to students who were lined up in rows of chairs bolted to the floor. The accumulated results of research on learning and what factors influence learning, has gotten the teacher down off the platform and unbolted the chairs from the floor and has caused the teacher to become a wise leader of discussion rather than a dispenser of all wisdom.

Furthermore, we have learned that the child's learning depends in part upon the teacher but also in part upon his peers, neighborhood, parental values, etc. We are concerned about the learning environment because research has pointed the way to the importance of these factors.

Let me present one of many practical examples of these contributions. Over the last three decades there has been intensive studies on why and how human beings learn. One of the most powerful findings has been that the most effective way in which human beings learn is through contingent positive reinforcement. What that means simply is that whenever a child or adult does something that is desirable, rewards should be applied immediately. If the youngster hits effectively in baseball he should be rewarded by praise or other tangible rewards on the spot; if he

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performs effectively in an arithmetic lesson he should be treated similarly. If we wish to reinforce the correct behavior then we need to reward it upon the immediate expression.

There is a second strategy which has been ever more commonly used in the schools and that is contingent negative reinforcement. That is when the youngster has done something wrong, you immediately give him negative reinforcement in terms of punishment, or in terms of negative statements in the hopes that will cause him not to do the undesirable or incorrect behavior again. That has proven to be definitely second in power and desirability to the positive reinforcement, but it still has a demonstrable effect if it follows upon the behavior all its own.

Contingent negative reinforcement can certainly be preferred to either noncontingent or random praises or threats. In other words, if the teacher merely praises the children when their performance doesn't justify it, the student doesn't know what he's being praised for, so the praise does not work. Threats that are vague and all-inclusive do not work for learning either. All of these results are so much a part of what we now call "common sense" it's hard for us to remember that before these research results were made available, only contingent negative reinforcement was really the educational strategy most often tried.

One of the most serious problems in education is not using what we know about the educational process. There is no clearly identifiable organizational bridge now available between *what we know* and *what we do*. Contingent positive reinforcement has paid off in application in a variety of remedial programs and is now in use in many programs for handicapped children; such procedures, when applied to educational situations, are almost always sucessful. Unfortunately for us and for the public school systems of the United States, there are two million elementary and secondary school teachers, 18,000 separate school districts, 50 separate states, and the ability to get the knowledge from scientists to educational practitioners has been limited to say the least. It is refreshing to see the issue of dissemination given prominence in the legislature now-pending.

Sometimes it is useful to take the reverse of a proposition in order to see it in its true perspective. Instead of trying to improve the development of educational research through NIE, let us pretend that we wish to discredit it or destroy it. What would we do? I think there are a number of tried and true methods.

1. We should give a wide variety of small unconnected grants to be completed over a short period of time. That way we can be sure nothing of note could be accomplished because we know it takes long, consistent and sustained effort to accomplish anything in any branch of science. Advances in areas such as heart disease or brain function require incredibly complex efforts measured by decades rather than years. Education is hardly less complex, and tough problems demand constancy of effort. I am sorry to say that the most educationally significant work we are currently doing at the Frank Porter Graham Child Development Center would not, in my opinion, be supported by NIE. This is because it is a longitudinal study embracing a five-year span in the life of young, economically deprived children. It requires sums of money that from the standpoint of the NIE budget would look large but in research, as in other endeavors, one has to spend money to make money.

2. We can periodically change the expectations of the agency for a particular research program. We can review the project every three months or six months and point out how they could change the emphasis of their program to fit new priorities. Since the priorities change every eighteen months, often on the basis of outside pressures, long term projects are always in jeopardy of being distorted or cut back before their effect can be noted.

3. We can refuse to support methodological development of measurement tools and instruments since any science depends upon sophisticated instrumentation. We can condemn projects to use the same outmoded tools, just as the tool and die industry was essential to modern industrial growth so the development of more effective measuring instruments is essential to educational progress.

Educational research is a new branch of science trying to use crude tools to study one of the most complex of situations: how the developing child learns, and what the maximum type of learning environment is that will provide the effective backdrop to learning. The disciplines needed to study such problems range from the sociology of organizations to the psychology of individual differences, to the economics of financial support.

Far from being a game, it represents the most serious of endeavors. Education has been the conduit of ideas and skills for our civilization—the circulatory system for knowledge and skills that have provided the social body the rich nourish-

ment needed to fuel a modern society. Yet, on every hand, we hear complaints that this institution of public schools is not doing well and, in fact, often failing miserably. If the schools fail, then we fail as a society. We need to encourage the maximum effort to seek new ways of achieving old goals, to be more efficient in both the discovery and the delivery of ideas. It is the ultimate in fantasy to think that the miniscule effort embodied here in this legislature will have a major impact on our schools but it can be a start—it can be a start only if, in my judgment:

1. We resolve to invest in large and meaningful projects that carry hope for some answer to significant problems, rather than problems chosen because they are small and cheap.

2. We can leave the researchers alone long enough to insure they can accomplish something without being reviewed every six months to see if they are on track with current priorities.

3. Design methods for extracting more utility from past research. I am convinced that we have inadequately applied what we now know from a host of fields: medicine, psychology, sociology, anthropology. Once we become aware of what can be drawn from what has already been done we can see more clearly the value of investing in more research. No serious or sustained effort has been made to search out the full range of scientific applications to educational problems.

4. Finally, build a regular and consistent delivery system as part of the educational establishment to insure that new and validated ideas can be inserted into the bloodstream of the educational establishment. This is something not done before either.

The promise held out by NIE is still there. If it did not exist, we would have to invent it. No society that professes any degree of concern about its educational system can abandon one of the essential tools for improving it.

Mr. BRADEMAS. Thank you very much, Dr. Gallagher, and gentlemen, I thank all of you.

Let me place some three or four questions before you, and perhaps the three of you would comment on those questions. In addition Dr. Levien or Mr. Glennan should feel free to address any of the questions.

No one has raised a question, I think, yet about the role of the laboratories and centers. How do you see this, or what brief comment can you give us?

Who wants to talk about what he thinks we ought to be doing with respect to them in this legislation? Or alternatively, how do you see their role?

I have read the report that was done some time back on that problem, so I have some idea of some of the politics of that issue.

Mr. GALLAGHER. My colleagues have kindly let me go first on that question.

I think that the issues that we are involved in in educational research are extremely complex. I think they need an organizational response. We are beyond the point where we can ask an individual investigator to deal with very significant problems involving the very complex nature of education.

I am currently a director of a center that involves about 18 or 19 professionals that are engaged in multidisciplinary research. We just couldn't do the kind of research we are doing at the center now as individuals. We have to do it in a collective forum. So in terms of the notion, "should there be organizational efforts dealing with these problems," the answer is yes.

Now, as to whether the established research and development centers or laboratories are appropriate or adequate to do the job that lies in front of us, I think that depends upon the adequate evaluation of professional peers and outside evaluators to determine whether these are the organizations to do that job.

I have no question that organizational effort is desirable and required in this area.

Mr. BRADEMAS. Anybody else?

Dr. Turnbull, I think you were on that panel a couple of years ago, or 3 years ago, wasn't it?

Mr. TURNBULL. That is right.

Mr. BRADEMAS. The panel which looked at this issue, I believe?

Mr. TURNBULL. Yes.

In my view the idea of having a strong set of laboratories and centers at some level is a very important one. I would argue that they should be sustained at a level that is sufficient, not only to maintain a collection of projects and programs within a center or a laboratory, but that we should give attention to the problem of institution building.

I believe the labs and centers have suffered from the fact that their funding has been tied to specific projects to such a degree that there has been no discretionary money left over with which the institution can do one of two things, and one is to attract and hold first-rate staff who are interested in signing on for the duration of a particular project. The second thing is to accomplish useful work in the interstices between the termination of one program and the beginning of the next one, and to round out the program of an institution into something that is a meaningful research thrust and something that goes beyond the sum of the individually supported and federally supported programs.

Mr. BRADEMAS. Dr. Glennan.

Mr. GLENNAN. I guess that I think that the subject of the labs and centers should not be a part of the authorizing legislation. The issue should flow from the program as it evolves.

Second, I would concur with both Dr. Gallagher and Dr. Turnbull's notions that institutions' programs of research should have continuity over time and having initiative outside of the Federal bureaucracy are very important.

I think that recent report which I would presume that Dr. Howe will discuss with you would deal with recommendations that that committee made, which in general I concur with.

I do not believe that with the foreseeable kinds of levels of funding that the Institute will have over the next few years, the current lab and center complex can be reasonably supported. I think that fewer national entities for research and some application should be supported, that the other lab and centers, may reasonably fall into a part of the dissemination or applications network that we have talked about earlier.

But I, for one, would like to get rid of the notion of the labs and centers as a group of things to be dealt with as though they were homogenous. They are in fact very distinct. They have very different perceptions of their roles in the world. They react to very different constituencies, and they do very different things, and I think we have really been hamstrung by making policy with regard to them as a collective entity.

Mr. BRADEMAS. Mr. Quie.

Mr. QUIE. Before we leave the subject, and I will be interested in future testimony just about that, the labs and centers started out as

being two completely different entities, and now they have come to be more closely alike. A difference exists as much between the various centers as it does between labs and centers.

Do you think that we ought to start over again, or else, as when we codify laws, take what we have learned on labs and centers and create a clearer, more comprehensive national policy so we can understand what we are trying to do rather than have it continue to grow like Topsy?

Any of you can address it.

Mr. GALLAGHER. Let me respond to that by making a suggestion. It seems to me that we can profit considerably by the past experience of the National Institutes of Health in this area. As a matter of fact, we at the University of North Carolina are profiting by that now.

What we have is a 5-year support grant from the National Institute of Child Health and Human Development. That allows us to support administrative costs, and it allows us to start new program development, and it allows us to give security to this quality staff that Bill Turnbull was talking about. I would strongly recommend that we try that kind of approach as an institution-building strategy. Then the institution should compete in the marketplace for research funds.

But one should not automatically give these institutions program money just because they are there as research and development centers. If they are quality organizations they should be able to compete well for funds, once this basic support money is available to them to insure the stability and continuance of the organization itself.

The problem is that many of these organizations have really had to get research money in order to keep the organization alive and they could not promise their staff more than 6 months or a year tenure. You cannot take a Nobel Prize winner and say every 6 months, "We don't know whether you have a job." There is a relationship between the quality of staff you can attract and the stability of the organization that you have.

Mr. LEVIEN. I wonder if I could add a point because it comes back to Federal responsibility to develop the education R. & D. system.

I think the distinction being made is an important one. There is an important institution-building program that should be part of NIE, the establishment of or at least the maintenance at a reasonable level of some of these institutions, but the major part of what they do ought to be funded through programs for which they compete. Unless the Federal Government stimulates their existence and preserves their existence they will fade away.

They are creatures of the Federal Establishment because, as I said earlier, they won't be created in any other way. They serve a useful purpose—similar to the industrial R. & D. lab—but we have to distinguish between the necessary creation of those institutions and their preservation. There should not be a large portion of the R. & D. budget set aside just for labs and centers, but only a smaller part as base support money; the other parts should come from the programs. I think this is a reasonable way to approach this situation.

Mr. WEATHERSBY. I have a quick comment. It seems more close to having a closed system in education research where the main people who read it are our fellow researchers who sit in judgments to award grants to other researchers, and we have seen it in NSF which is one

reason NSF is not a particularly good model for what we do in education.

It may be in a competitive situation that the client is the funder, the client is the Federal Government, by and large, and we have the Federal Government buying the production of research that is largely or potentially unrelated to needs or interests, desirability or potential use of people in the field.

One of the real dilemmas is how can you create a system where research is in fact responsive and yet has access to enough money to have institutional capacity that I agree completely it needs? One thing we might consider, or at least think about is this. Are there alternative ways to channel funds for purchase of research so that the people who are ultimate users have much more of a say in what is now being produced?

Right now I offer a personal opinion there is virtually no impact from the users point of view on what is being produced. They are being told it is for you to use, and they are saying, "We don't want to use it." We look back and say, "If we can find two who have used it, we will have them testify." But we are hard put to do that.

The peer group, and if you want to read interesting work, read some of the work that has been done on the kind of policy level analysts around Washington, the peer group for the product of people's work is in fact other policy analysts. The peer group for the researcher is in fact people you expect to read it in other research institute centers, factually and so forth as opposed to any direct feedback from people in the field.

Mr. QUIE. I recall Mr. Brademas was holding hearings before NIE was set up, and it seems to me a strong point was made that practitioners out in the field had to be tied with the real constituency that would benefit from utilizing results of research it later on, and you are saying the same thing now. I guess what we need from you is the best structure whereby that input can be made from those, the element users, rather than the incestuous relationship that now exists.

Mr. BRADEMAS. I might add, and I say this in view of Dr. Weathersby's testimony, that this subcommittee, in drafting the legislation, gave dissemination authority to NIE over strong objections of the Department of HEW.

In addition, Dr. Weathersby, this committee very specifically made clear in the language of the report that we did not regard NIE as focused solely on elementary and secondary schools, although if you go back to the language of President Nixon's March, 1970 speech on educational reform, you will recall that he talked about improving our schools, which is an ambiguous word at best, but I think he must have had in mind elementary and secondary schools.

We made clear in our committee report that we regarded the purpose of the NIE to look at education as it ran from early childhood all the way through life.

To comment on your third point, Dr. Weathersby, we also made clear in that report, I certainly have in every discussion I have had of the purpose of the legislation, that we felt it was important that the NIE focus on education in both formal and nonformal settings, so at least so far as we are here concerned as the sponsors of the legislation, we knew what we meant, and I don't think that Dr. Glennan and his successors have quarreled with us on any of these points.

Let me just mention, or let me just ask two very brief questions because I want to yield to others.

I address myself now to the three of you who just testified. Do any of you disagree with the position of Dr. Levien and Dr. Glennan that it would not be a good idea to write into the authorizing language some greater degree of specificity for the administrative structure of NIE, in particular, the idea of institutes that would be operating at differing levels of education?

Is there any comment? Well, if there is, don't hesitate because I am sure you want to disagree, but I would just like to know how the three of you are in agreement with that.

Mr. TURNBULL. I would be very much in agreement with the position that was taken by Mr. Levien and Mr. Glennan. I would say further that most of the problems in education I think do not lend themselves very well to division according to level. Most of them flow through all levels of education.

I think one of the ills that we have suffered from in our educational structure is the discontinuity that is brought about by our tendency to think in terms of one level at a time rather than in terms of the continuity that characterizes learning.

I would like to personally see the emphasis put on continuity in problems rather than on particular educational level.

Mr. WEATHERSBY. I would concur completely.

I would add one other thing. Instead of the Federal Government designing institutions to produce research, it might consider at least a partial alternative to that of increasing purchasing power of those consuming research so that people at the local level who were worried about establishing educational research capacity at the school district level and institutional level and State departmental level would have access to the direction of some of these funds, either through existing programs that NIE may be offering and through labs and centers that may be established on some other basis, or partially supported through private research groups of whatever.

Mr. GALLAGHER. I will just add my concurrence to that. If I were going to subdivide it I don't think I would do it in that particular way, but I have seen administrative structures come and go, and so have you, Mr. Chairman, and I am not impressed by what can be obtained by merely shuffling the cards again.

I think what is going to be done significantly in educational research is going to be done out in California and Indiana, and Georgia, and the other parts of this country. As long as the resources get out to the good people who are involved on important problems, then you will get good results.

Mr. BRADEMAS. My last question is this, and again if you can comment briefly, anyone who wishes to do so. What role do you see for schools of education, that is colleges of education, in the United States in respect of educational R. & D.?

Mr. GALLAGHER. I think that is a very important question, and it gets to one of the earlier questions I think you asked, Mr. Chairman. That is, why aren't educators more interested in research?

I think the issue here is that educators are basically service-oriented people. They want to help people. They don't necessarily want to study the complex effects of their work. If education is going to move

forward, they are going to have to bring in social scientists who are interested in these various complex problems, so I would say that schools of education may or may not be the best place for a research effort in education.

It might be placed in a center involving cultural anthropologists, social scientists, and psychologists, but education in many universities remains essentially a service operation and they are often not terribly interested in research as a process.

So I would say it depends on the individual university and what is in that school of education. I would not automatically put a research operation within a school of education.

Mr. BRADEMAS. I raised the question because there are a large number of colleges of education. They have very great power in the educational structure. Dr. Levien made the point that he wanted to see greater inhouse capacity for research and development built into existing structures of education. That they are not now interested in carrying out such a role must be obvious.

My question is, given their influence, why not try to encourage them? I know Wilbur Cohen feels this way. That is my question.

Mr. LEVIEN. I would agree fully with the implication behind your question: the schools of education should have active research activities for several reasons. One is that they are a major medium of dissemination. One of the ways to get the findings of R. & D. into education is through the training process for new teachers, new administrators, and so on.

We can look here to the schools of medicine where the combination of service, training, and research has been a very powerful tool for innovation as well as a means for stimulating good research.

The second reason is that inclusion of a research capability in a school of education could help improve the quality of that school. I feel that the careful search for understanding of the educational process that is being taught will make the basis of the education curriculum more substantial and will produce greater depth of knowledge among the faculty.

It would take time before research capability can be established in all schools of education, but there are certainly a number of them now like Harvard, Stanford, and Michigan which research is going on of a very high caliber.

Thus, I believe that as well as encouraging research in the States and locally, we should make a special effort to encourage it in schools of education.

Mr. BRADEMAS. Thank you very much.

Mr. Hall.

Mr. HALL. I have just a couple of quick questions.

Dr. Turnbull, I notice on page 3 of your testimony, the second paragraph, starting on the 9th line, and I will read it if you don't want to look at it:

> The other large obstacle has been the lack of any agency with a specific mandate to stimulate research, to monitor findings, and to spread the word about successful improvements, systematically and over a period of years.

That would lead me to ask you two questions, I suppose. Are you saying maybe we should have a new agency?

The second question would be, can you see the value maybe of a Department of Education with Cabinet status?

Mr. TURNBULL. I am attempting there to argue for a strong agency which I believe NIE can itself constitute to fulfill the function that is noted in that paragraph. Personally, I would favor Cabinet status for the field of education. I think that in view of the centrality of education problems to progress in this country that would be a very wise step.

Mr. HALL. Thank you very much.

Dr. Gallagher, I was somewhat intrigued by your statement on pages 5 and 6 about tangible rewards, and it makes me want to ask you, do you have some training and background in behavior modification?

Mr. GALLAGHER. No, sir, that is not one of my specialties, but there are some of the people on our staff that do work in this particular area.

I must say that what has been done, particularly with handicapped children, has been most impressive and most productive. Like any tool, it is just a tool. You can misuse a wrench or screwdriver, or a pliers, and I suppose in some respects some of that technique has been misused. But in its proper use, using it for what it is good for, it does a very fine job.

Mr. HALL. Well, thank you very much.

Thank you, Mr. Chairman. I have no further questions.

Mr. BRADEMAS. Gentlemen, again, I want to thank all of you on behalf of all members of the subcommittee. This has been extremely useful testimony, and I know it will be most helpful as we continue work on this legislation.

We shall resume hearings tomorrow morning at 9:30 in this room beginning with Dr. Howe, former Commissioner of Education.

The subcommittee is adjourned.

[Whereupon, at 11:45 a.m., the subcommittee adjourned, to reconvene at 9:30 a.m., Tuesday, November 4, 1975.]

NATIONAL INSTITUTE OF EDUCATION

TUESDAY, NOVEMBER 4, 1975

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SELECT EDUCATION OF THE
COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 9:30 a.m., pursuant to recess, in room 2175, Rayburn House Office Building, the Hon. John Brademas (chairman of the subcommittee) presiding.

Members present: Representatives Brademas, Chisholm, Cornell, Hall, Quie, Jeffords.

Staff present: Jack G. Duncan, counsel; Patricia Watts, administrative assistant; Mike Cohan, staff assistant; and Christopher Cross, senior education consultant.

Mr. BRADEMAS. The Subcommittee on Select Education will come to order for the purpose of further consideration of H.R. 5988, a bill to extend the authorization of legislation for the National Institute of Education.

The Chair would observe for those not present yesterday on the first day of our hearings on this bill that we heard from a number of distinguished authorities in the field of educational research, and from their testimony we obtained both a conceptual framework for educational research and some historical perspective on the National Institute of Education.

Today we are pleased to have with us other outstanding authorities on education who are going to present us their views. We are particularly pleased to have as our first witness an old friend of this subcommittee, Dr. Harold Howe, presently vice president for the Division of Educational Research at the Ford Foundation and from 1965 through 1968 the Commissioner of Education.

Mr. Howe, we are very pleased to have you with us today.

STATEMENT OF HAROLD HOWE II, VICE PRESIDENT, FORD FOUNDATION, DIVISION OF EDUCATIONAL RESEARCH; FORMER COMMISSIONER OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. HOWE. Thank you, Mr. Chairman.

Would you like me to proceed?

Mr. BRADEMAS. Please do.

Mr. HOWE. Mr. Chairman, I supplied your committee with some short testimony which I will not read in the interest of time but simply ask that it be entered in your record. I would like to make just a couple of very short comments about H.R. 5988, the bill you are

considering. These are points which are not completely covered in my written testimony.

The first has to do with the statement in the bill that the Institute should concentrate its resources on several priorities. I believe that the priorities are well selected and are very important matters for education in the United States.

I raise a question about the meaning of concentrating the resources as to whether that implies that these shall be the sole activities of the National Institute and its activities in education research or whether it says that there should be concentration on these subjects but by implication there might also be the possibility that the National Institute of Education would be able, from time to time, through the judgement of its director and advisory council, to invest in some particularly interesting project which did not necessarily fall within this listing of important directions.

It seems to me wise to think that from time to time some scholar or other person in the world of education research and development is going to have an idea that neither the Members of Congress or anybody else has had and that it would be good to have the opportunity to support that idea while concentrating the resources as suggested here. So I make this suggestion for interpretation of the listing of priorities. Second, I note that at the end of this legislation there is a statement that an authorization is created for the year 1976 and the two succeeding fiscal years. If I were to make my own personal recommendation on this I think that the authorization should be longer. I fully understand the desire of the Congress to exercise oversight of a new institution like this and to reauthorize it from time to time. But it seems to me that having been through the difficulties that it has, this institution is now on the way to strong leadership and to more effective participation in its affairs of its advisory council and that what it needs is a longer term license for its planning than this bill authorizes. I would make it a 5-year authorization.

Finally, Mr. Chairman, I simply don't like the level of the authorization. It seems to me that it is more tailored to a habit of appropriation than to a realistic view of what needs to be done in this field. That habit of appropriation of the past several years has its history which I don't need to repeat here, and I believe that the authorization over a 3-year period ought to be larger.

Whatever appropriations turn out to be, I think that this bill proposes too tight a ceiling.

Mr. Chairman, I won't make further comments now but would be happy to answer any queries that you or your associates may have.

[Prepared statement of Harold Howe follows:]

PREPARED STATEMENT OF HAROLD HOWE II, VICE PRESIDENT FOR EDUCATION AND RESEARCH, THE FORD FOUNDATION, NEW YORK, N.Y.

Mr. Chairman, I am here to speak in support of H.R. 5988, "A Bill to extend the authorization of appropriations for the National Institute of Education, to establish priorities on which the resources of the Institute will be concentrated, and for other purposes."

I can lay no claim to authoritative views on this Bill as a practitioner of education research. My vantage point is that of a person who has had responsibility for planning and advancing education activities generally. My entire professional life has been spent teaching, running schools and colleges, and hold various other responsibilities in policy development and planning in the field of education.

Throughout these activities, I have been involved with education research and development in more ways than I can number, but I have never gained the status of a researcher. My basic views in regard to R&D in education and to the NIE in particular are best expressed in a few paragraphs from a recent report of consultants to the Director of NIE. It is not surprising that these paragraphs give my views, since I wrote them, although they appear in the report on pages 65 and 66 as the views of the consultants. It seems to me that the most time conserving way for me to make a statement here is to read them to you. They are as follows:

"To understand the effort that the United States is making through NIE to support educational research and development that will produce demonstrated improvements in teaching and learning, one needs a world perspective. Looking at the economically well-developed countries of the world, one finds precious little successful, applied educational R&D. There are some centers in Sweden, the United Kingdom, Germany, Israel, and a few other places where disciplined inquiries about education by social and behavioral scientists are providing the basis for changes in educational policies and program. But the general picture is one in which expectations exceed performance, and measurable improvements in the learning and behavior of students are difficult to demonstrate.

"In the less-developed countries educational research and development has even further limitations. The supply of trained social and behavioral scientists available to work on R&D is so limited that the first task in many countries is to prepare capable people. Work now under way tends to focus upon the evaluation of a few experimental projects or upon accurately describing some of the problems that exist prior to attempting their solution.

"Seen in this perspective the United States has a rather large and sophisticated commitment to educational research and development. Indeed, many nations of the world look to us for guidance and stimulation in the field. Yet if this is true, why do we find ourselves discontented or even disenchanted with the results of what we are about? The answer to this query is not simple, but it must certainly include the following: 1) Social science research generally is only slowing developing the sophistication that allows it the luxury of predictable results; 2) The problems of bringing about and measuring changes in human learning and behavior are vastly more complex than those of technological change and are cut across by difficulties of cultural tradition, linguistic style, and emotional factors that simply do not exist to the same degree when one is dealing with things rather than people; and 3) The need for improvement in the results of education is so clear and so great that all interested parties (legislators, educational policy makers, teachers, and parents) develop an initial enthusiasm for educational R&D only to have its halting and limited results seem at the least unsatisfactory and at worst inexcusable.

"Against this background it is well to ask whether investments in this difficult field are worth the money. The only possible reply is that we must keep plugging away at the difficult problems of learning and teaching and that doing so by orderly scientific inquiry is almost certainly better than by hunch. More is known today because of educational research about how to motivate children, about how to develop and try out methods and materials, and about how to measure outcomes. That we do not have the final answers in any of these realms is not a valid reason for abandoning the effort. For the United States, NIE is the central expression of that difficult and frequently frustrating enterprise."

When the National Institute of Education was first being discussed in the early 1970's, it seemed to me an imaginative proposal for focusing the Federal initiatives in educational research and development. After various vicissitudes at NIE, I still hold the same view. I think in addition that the broad categories for research priority listed in the legislation before you make good sense. They are stated in general enough language so that they should not be unduly restrictive of imaginative ideas that emerge from education researchers. It does seem to me important to create a record here which interprets the intent of the Congress in setting these priorities as wide ranging and inclusive rather than narrow and particular. Otherwise there is a danger that legislation will presume to design research, and that might hamper relationships of NIE with the scholarly community.

I would like to express particular enthusiasm for the addition suggested to section 405(e) of the Act which authorizes the Director to establish and maintain research fellowships in the Institute for fellows from both the United States and abroad. The stipulation that the Director may invite persons from other countries

to participate in education research activity in the United States is extremely important. As suggested in my statement already, there are resources to draw on in the field of education R. & D. outside the United States. The NIE needs both authorization and encouragement to be in touch with these.

Finally, Mr. Chairman, I want to express my lack of enthusiasm for the $80 million authorization contained in this bill. It pegs NIE for the next several years at a level that will clearly restrict its activity. This unfortunate ceiling is proposed at a time when NIE is exhibiting characteristics that deserve both the confidence of the Congress and its backing. NIE's Advisory Council is becoming increasingly effective. Its new Director has taken hold with sound planning for the future; To have the authorization at a level which reflects something less than what the budget was a few short years ago seems to me an anticlimax to an otherwise excellent piece of legislation.

Mr. BRADEMAS. Thank you very much, Mr. Howe.

At the outset, let me ask your comment on a question that I have put to other witnesses which is not without some relevance to your observation with respect to the language in the bill that sets forth a number of priorities. May I say I agree with your own interpretation of what would be appropriate with respect to the articulation of priorities—namely, that these need not be considered as exclusive—but the question that I would put is to ask your judgment on a suggestion I understand has been made by some, which would establish within the structure of NIE a number of other institutes tied to levels of education such as early childhood, elementary, and secondary and postsecondary.

I certainly don't pretend to make this suggestion, but I just wondered what your reaction was to it?

Mr. HOWE. It is the first time I have heard the suggestion, Mr. Chairman, and therefore this is an off-the-cuff reaction without hearing major arguments for the proposal, but my initial reaction is that it would be unwise at this stage in the development of the National Institute. I think further that a recommendation like this one ought to be reviewed in the advisory council of the Institute.

The proposal would create a crosscutting organizational problem in an outfit that has had its organizational difficulties, and it would seem to me that, particularly at a time of an extrastringent budget for NIE, it would create a new crosscutting of claims on that budget which would make planning problems difficult.

So I would simply put that suggestion on ice for a while and let the NIE try to run its affairs as an institute without a new system of organization imposed on it.

Mr. BRADEMAS. Another suggestion that was voiced yesterday by, as recall, Dr. Levien, is this, that encouragement should be given to educational institutions such as schools, State education agencies, other educational entities, to develop some in-house R. & D. capacity in order that they might more easily link up with research that is supported by NIE or other research.

What is your reaction to that?

Mr. HOWE. I think that is a very excellent suggestion, but I don't think that it needs to be implemented by specific legislation. It would seem to me the kind of thing that NIE itself in dealing with its network of cities and States could well develop.

In a report I recently participated in helping to prepare on the problems of NIE, we examined the supply of competent educational researchers in the United States and commented on the fact that

there were probably too few and that they were probably not sufficiently available to States and cities. So I would have no quarrel with the idea, but again, would not try to legislate about it.

Mr. BRADEMAS. Let me ask you another question that runs more broadly to educational research in the United States. I have been struck by what has seemed to me to be a situation, a situation which generalized a lack of interest in educational research on the part of the educational community generally and in particular on the part of the university community and that Congress felt constrained to agree with President Nixon's proposal for a National Institute of Education, is, I suppose, some indication that we felt there was a great deficiency in this country in educational research.

Our foundations, one of which you are associated with, have supported educational research. Could you give us any general comment on (a), the role of foundations in supporting educational research, and (b), the support for educational research generally outside of the Federal Government in this country?

Mr. HOWE. I can't give you accurate numbers which compare the several types of agencies that do support education research. I can say that the Federal Government, since the enactment of the cooperative research legislation some years ago, has been the major force in this business in terms of dollars and indeed in terms of achievements.

Foundations, like the Ford Foundation for which I work, the Carnegie Corporation, and perhaps a dozen others are interested in one aspect or another of education research and will continue to be. But even the Ford Foundation, the largest foundation in the world, has not the resources to do the kinds of things that need to be done.

So what we do is complementary to the major Federal effort. We cooperate strongly with the Federal program and most foundations supporting education research try very hard to dovetail their programs with the Federal initiatives.

For example, we have supported jointly with NIE a major research and development project on school materials for considering the female role in society and the ways that schools can broaden opportunities for females through helping them to think about themselves and about the limits that are traditionally placed upon them. This research is done at the Educational Development Corporation in Massachusetts to provide a new curriculum for this purpose. We paid for some of it and the NIE paid for a great deal more. The Ford Foundation is heavily engaged in research on the financing of schools in the United States, as NIE will be under priorities suggested here, and indeed now is. We want to cooperate strongly with that.

So I think there is no conflict or duplication in what is going on.

States and school districts are hard put to provide funds for research and development activities. The demands upon them are so immediate for operational activities that to set aside some funds for this purpose, although it is important to do so, is extremely difficult and no doubt will remain difficult. So I see the Federal role as the primary role.

Mr. BRADEMAS. That is very helpful. I guess the point I am interested in, that has continued to some extent to puzzle me, and I suppose it finds some echo in the so-called Campbell report, in which you participated, and I look here at the conclusions of your report regarding the R. & D. system in which you say, for example, conclu-

sion 2: The R. & D. system outside of the labs and centers is fragmented and hard to organize, owing in part to the linear number of R. & D. groups and universities.

I can understand the lack of R. & D. in local school systems or State education agencies. You just observed that. What has continued to puzzle me is that there has not been more interest on the part of scholars in American universities about learning and teaching. I just find it difficult to understand that there is so little interest on the part of the thinkers in our society about those institutions which have to do with human thought.

It indeed was, just to cite one instance with which I think you are familiar, when this committee, the Special Education Subcommittee, worked in 1972 on the higher education legislation, we were scandalized, that is, intellectually scandalized, at the lack of serious systematic thought by the American university community with respect to what would be the appropriate ways of channeling Federal support to the American university community. Therefore, we had to commission the National Commission on the Financing of Post-Secondary Education.

I just raised the general point that I would like to think that there would be much more interest from an intellectual point of view in educational research in the university community, without Congress having to vote the money for them. They ought to be thinking about these matters whether there is Federal money or not. That is my sermon.

Mr. LONG. I have some agreement with your sermon. But I have a qualification of it, in this sense I think that some of the best minds in the social sciences in universities are beginning to address themselves to the problems of education. I think this is true among some economists, among some psychologists, among some sociologists.

I think part of the problem that the very best minds in universities have had about this is that in earlier years there was a deadness about the work being done in educational research that frightened them away from it. But increasingly they see the need for it.

For example, the National Academy of Education members, who are a good sample of the leadership in research activity in education, are having a wider influence, so that although I agree that more can be done, I think there is some progress. In the post-Sputnik years, there was, of cause, a wide interest by university scholars in the science and mathematics curriculums of schools. It resulted in some improvement.

Mr. BRADEMAS. Thank you very much.

I have many other questions, but we have other members and other witnesses.

Mr. Cornell, any questions?

Mr. CORNELL. No questions.

Mr. BRADEMAS. Mrs. Chisholm of New York.

Ms. CHISHOLM. Thank you very much.

There is a large portion of NIE funds which are earmarked for labs and centers. Don't you think it might be better to lower or eliminate that earmarking of funds? If you award contracts on the basis of who can do the best job, wouldn't it give NIE much more flexibility than it now has?

Mr. HOWE. That would give NIE more flexibility than it now has, and, Mrs. Chisholm, I would have to say I agree with you it would be a good thing to do. But I have to say it against a background perhaps of some prejudice on this matter in that I have never been enthusiastic about Congress earmarking of funds. It always seemed to me a good thing to let the people running the show do so, but of course that comes from the viewpoint of one who once ran a show.

Ms. CHISHOLM. I have another question.

The Campbell report recommended closing down labs and centers who weren't doing quality work. These centers and labs have done a good job, and this of course would make those labs and centers considerably larger. Can you tell us from your experience about the advantages and disadvantages of a large research facility in the area of education?

Mr. HOWE. That there is a valid concept of critical mass, of related disciplines that need to be in a major research center to get at a matter as complex as education. And if you accept the notion that is further reflected in that report, that the reconstituted labs and centers should be smaller in number and that each one should focus its energies on some major mission of NIE, I think the idea of a center of considerable size to handle missions of a comprehensive nature, is important.

I would not presume to give you an exact statement of what that size ought to be. As I recall the report, it talks about the range of $3 million to $5 million of annual support or something of that kind. But I do think that, the level of support of $0.5 million to $1 million is too low. So I would stand behind that recommendation.

Ms. CHISHOLM. Thank you, no further questions.

Mr. BRADEMAS. I want to ask you, Mr. Howe, to remain at the table, if you would be kind enough to do so, as we turn to our first panel, which will focus on educational laboratories and centers.

So could we now invite to the witness table Richard A. Rossmiller, Chairman of CEDAR, and Director of Wisconsin Research & Development Center for Cognitive Learning, University of Wisconsin, whom I am sure my colleagues will be glad to see, accompanied by Robert G. Scanlon, member of the board of trustees, Council for Educational Development and Research, and executive director for Research for Better Schools in Philadelphia, and William B. Cannor, member of the consulting team that drafted the so-called Campbell report, and the dean of the LBJ School of Public Affairs in Austin Tex., another old friend of this subcommittee whom we are very pleased to see here today.

Now, I would like to suggest that each of you speak briefly and try to summarize your prepared statement, and then members of the subcommittee can put questions to all of you. Shall we begin with you, Mr. Rossmiller?

66-410—76——7

A PANEL WAS SEATED CONSISTING OF RICHARD A. ROSSMILLER, CHAIRMAN OF THE COUNCIL FOR EDUCATIONAL DEVELOPMENT AND RESEARCH (CEDAR), AND DIRECTOR OF WISCONSIN RESEARCH & DEVELOPMENT CENTER FOR COGNITIVE LEARNING, UNIVERSITY OF WISCONSIN, MADISON, ACCOMPANIED BY ROBERT G. SCANLON, MEMBER, BOARD OF TRUSTEES, CEDAR, AND EXECUTIVE DIRECTOR, RESEARCH FOR BETTER SCHOOLS, INC., PHILADELPHIA, PA.; AND WILLIAM B. CANNON, A MEMBER OF THE CONSULTING TEAM THAT DRAFTED THE "CAMPBELL REPORT," AND DEAN, LYNDON B. JOHNSON SCHOOL OF PUBLIC AFFAIRS, AUSTIN, TEX.

Mr. ROSSMILLER. Thank you, Mr. Chairman.

I am Dick Rossmiller, University of Wisconsin at Madison. We prepared for the record a rather lengthy statement in which we tried to place in historical perspective the development of what are now called educational labs and R. & D. centers, and to give a brief history of that development and state the situation as we currently see it.

I would like to spend a brief time noting the specific recommendations that we are suggesting to the committee, and a bit of the rationale behind them.

For those of you who have copies of the statement, they appear on page 39 and following.

The first recommendation is perhaps self-evident; it recommends the NIE be reauthorized. We want to make it clear we support the notion of an NIE, and, further, we feel there was great wisdom in the charge given the Institute in the original authorizing legislation which established four areas of work: helping solve or alleviate the problems of and achieve the objectives of American education; advancing the practice of education as an art, science and profession; strengthening the scientific and technological foundations of education; and building an effective research and development system. We think those are still very wise charges.

Our second recommendation emphasizes the last of those charges; that is, we recommend that the National Institute again be directed to build an effective research and development system. This, I believe, is in line with the testimony you heard yesterday from most of the witnesses.

We urge that a substantial part of this effort be directed to strengthening the educational laboratories and the research and development centers. We feel that NIE has not yet carried out this aspect of its mission. We feel that Congress should spell out for NIE that part of this mandate involves strengthening the existing labs and centers.

Now, we do not wish the committee to think we are arguing for carte blanche funding. We feel that if an institution—a center or a laboratory—cannot demonstrate, within a reasonable period of time, perhaps 3 years, that it is providing nationwide leadership in a chosen problem area, that it is performing high quality research and development work, then it should not be continued.

We feel that if a host university does not assume some responsibility for the direction of a center and for its leadership, and for

providing it with assistance and flexibility and at least sharing in part in the funding of the effort, then perhaps the Government would best be advised to place its resources elsewhere.

In terms of labs and centers as well, we believe that the practitioner should be involved in all phases of the work from problem identification through the development process and through the implementation of educational innovations in the schools.

We are encouraged that the Institute and its policy making board are taking a fresh look at labs and centers. We are encouraged by the fact that this is already being planned. But we also recognize that agency heads come and go and the present director of NIE, like agency heads before him, may go and we will have another director.

We think it is imperative for Congress to state that the Federal resources represented by the labs and centers and the many dollars that have gone into building those institutions should not be lost out of ignorance or neglect, but should be considered carefully and the implications of decisions or actions should be considered carefully.

Our third recommendation is that the Institute be reauthorized for a period of 3 years. We believe that NIE is on the right track, but we also believe it needs continued congressional oversight to help it stay directed to its mission.

Fourth, we recommend that the National Council on Educational Research be given authority to appoint an independent staff with sufficient resources to meet its congressional charge. We feel that the Council is beginning to function as it was designed to function, that it has an important role to play in helping establish priorities and directing the work of the Institute in these general areas. We feel it is very difficult for the members of the Council to perform this task adequately without staff support.

We are also concerned about the handling of appointments to the Council. At this point, for example, the administration has not yet announced replacement for Council members whose terms expired last July. As the legislation currently is written, those members whose terms expired in July do not continue and cannot vote.

Consequently we recommend that Council members be retained as voting members until their replacements are confirmed, thus eliminating the problem of establishing a quorum for Council meetings.

Fifth, we recommend that the Institute be assigned responsibility for supporting training of research and development specialists in the field of education. The Campbell consultants and information provided by other groups note the undersupply of educational research and development personnel available to perform high quality work.

We think that the congressional mandate to build an effective R. & D. system is going to be very difficult to meet until there does exist a sufficient talent pool that can work in local school districts and State departments of education as well as in colleges and universities, R. & D. centers and laboratories. We suggested some ways in which it might be accomplished.

Recommendation six, we strongly recommend that the Council and the Institute be directed to establish and maintain quality control procedures for educational research and development work. The questions of "How well does it work?" or "What difference does it

make?" are very important questions. They are raised very frequently with regard to our products.

We feel that the quality control question is probably the single most important variable in our work. We often have been under pressure to disseminate products before we feel they have been adequately tested.

Also, the fact is that quality control, good quality control, is expensive. These pressures sometimes tend to work against us so we hope (and I think some progress is being made within the Institute in this area) that quality control procedures would be built into every contract and grant awarded by the Institute, and we also urge that contractors be given adequate time to demonstrate the quality of the finished product before it is publicized for dissemination.

No. 7 is a recommendation that the Institute be allowed to use a variety of procurement procedures for funding educational research and development work. Again, the report by the Campbell group indicated some of the problems that are associated with relying exclusively on requests for proposals. We think there are other alternatives that might be employed and basically that the procurement procedures should match the work to be performed. Therefore we urge that the authorizing legislation make it clear that the Institute has the option to employ a wide variety of procurement strategies in supporting educational research and development.

Finally, we recommend that the Institute be reauthorized for a total of $363 million for 3 years and that this be spent in four major areas: training, as I mentioned earlier, research and development, staff and expenses, and dissemination.

We recommend that the budget be structured to insure that sufficient funds are allocated to performance of the Institute's primary mission, that is, educational research and development work.

We realize these figures may be viewed by some as modest but we balance our desire for increased funding with a realization of the need to maintain fiscal responsibility in the Federal budget. We believe that the levels of funding we have recommended will enable the Institute to experience extended growth and hopefully at the end of 3 years it will have a record of accomplishment that warrants higher funding authorization.

We also believe that general guidence for the Institute regarding the proper balance between project research and policy analysis studies on the one hand and programmatic research and development on the other is important.

We recognize that all three efforts are essential, but we believe that 20 or 25 percent of the Institute's research and development funds might well be spent on project research and policy analysis studies and the remaining 75 or 80 percent should be directed to fund major programmatic research and development efforts addressing critical policy areas.

Yesterday Dr. Gallagher mentioned the importance of supporting meaningful projects and noted that results take time. We also recognize the crucial importance of dissemination. But we point out with the limited budget of the Institute it can hardly be expected to have primary responsibility for this major effort, particularly in view of the fact that other agencies within the Department of Health, Education, and Welfare also engage in dissemination of educational research and development products.

Perhaps the Congress should direct the Department to better coordinate dissemination efforts across the various agencies and thus bring significant resources to bear on this critical need in a more focused way.

We are concerned, moreover, that without an appropriate balance between programmatic research and development and project research and policy analysis studies there may well be precious little to disseminate in 3 or 4 years.

I would point out that the major items that NIE has now in finished form ready for dissemination that are in the field were developed starting with funding from the Office of Education or other agencies. It is a long period of time betweeen the start of development and the time things are ready to take out to the field for use by teachers in schools and unless we maintain this balance and keep development products in the pipeline, 3 or 4 years from now there will be very little to disseminate and building a dissemination system and network will give us something, give us a structure with no content.

Thank you, Mr. Chairman. I will be pleased to answer any questions.

Mr. BRADEMAS. Thank you very much.

[Prepared statement of Richard A. Rossmiller and Richard G. Scanlon follows:]

PREPARED STATEMENT OF RICHARD A. ROSSMILLER, DIRECTOR, WISCONSIN RESEARCH AND DEVELOPMENT CENTER FOR COGNITIVE LEARNING, UNIVERSITY OF WISCONSIN, MADISON AND ROBERT G. SCANLON, EXECUTIVE DIRECTOR, RESEARCH FOR BETTER SCHOOLS, INC., PHILADELPHIA, PA.

BIBLIOGRAPHICAL DATA ON RICHARD A. ROSSMILLER

Experience

1950–52, 1954–57—Teacher and Superintendent, Racine County (Wisconsin) Agricultural School.
1952–54—U.S. Army.
1960–61—Hall Principal, Evanston (Illinois) Township High School
1961–62—Superintendent, Muskego (Wisconsin) Consolidated Schools.
1962– —Professor of Educational Administration, University of Wisconsin—Madison.
1973– —Director, Research and Development Center for Cognitive Learning, University of Wisconsin—Madison.

Related: Fact Finder, Wisconsin Employment Relations Commission, Visiting Professor, University of Florida, 1968–69, Finance Specialist, National Educational Finance Project, Consultant, the President's Commission on School Finance, Advisor, Governor's Task Force on Educational Financing and Property Tax Relief (Wisconsin), Consultant, Handicapped Children Education Project, Education Commission of the States, and Consultant, Ministry of Education and Culture of Brazil on graduate programs in education.

Education

B.S. (Agriculture and Education), 1950, University of Wisconsin—Madison.
M.S. (Educational Administration), 1958, University of Wisconsin—Madison.
Ph. D. (Educational Administration), 1960, University of Wisconsin—Madison.

Publications

Author or coauthor of over 50 books, monographs, and articles on educational finance, educational law and educational administration.

BIBLIOGRAPHICAL DATA ON ROBERT G. SCANLON

Experience

1954–59—Elementary School Teacher.
1959–62—Elementary School Administrator, Leetonia, Ohio.
1962–64—Director of Elementary Education, Middletown, New York.
1964–66—Administrator, Oakland Elementary School, Pittsburgh, Pa.

1966–72—Director, Individualized Learning Program, Research for Better Schools, Inc., Philadelphia, Pa.
1972–Present—Executive Director, Research for Better Schools, Inc., Philadelphia, Pa.

Professional Activities

Chairman, Council for Educational Development and Research, Inc.
Special consultant, UNESCO.
Member, Society for Applied Learning Technology.
Member, American Educational Research Association.
Consultant, U.S. Naval Command.

Education

B.S. (Elementary Education), 1954, Duquesne University.
M.A. (Educational Administration), 1956, Duquesne University.
Ed.D. (Elementary Education), 1966, University of Pittsburgh.

Publications

Author of over 20 books, monographs, and articles on individualizing instruction, educational change, educational technology, and the future of education.

INTRODUCTION

The House Subcommittee on Select Education in 1972 ushered into place a new agency known as the National Institute of Education. The Committee's authorizing legislation challenged the new agency to improve education through research and development.

Now, three years later, the Institute's performance is under review. To a large extent, this review will determine the Institute's future. Consequently, we are pleased to share with the Committee our views of the Institute, to discuss our relationship with it, and to propose modifications in its reauthorizing legislation.

We address the Committee as representatives of the country's educational laboratories and university-based research and development centers. Our institutions were created by the government, under Congressional authority, from six to eight years before the arrival of the Institute. Thus our testimony will offer an historical perspective and a current view of the federal involvement in educational research and development.

Specifically, we will discuss the following with the Committee:

1. The creation of the centers and laboratories;
2. Their association with the Office of Education;
3. Their expectations of their relationship with NIE;
4. Their early experiences with NIE;
5. Their current relationship with NIE; and
6. Recommendations for NIE's reauthorization.

In addition, we will comment on the institutions themselves. We will describe their staffs, explain their relationships with the educational practitioner, and highlight their accomplishments.

Although our testimony talks primarily of centers and laboratories, our central theme is directed to a larger issue: the need for the government to sponsor programmatic research and development in education. Our institutions were created by the U.S. Office of Education, under Congressional direction, in recognition of this need. The original NIE planners envisioned that support for this critical function would be assumed by the new agency. However, the Institute chose to downplay the importance of programmatic research and development; in the process, it nearly decimated those institutions best able to conduct such work. Only through Congressional intervention and a subsequent investigation of the Institute by an outside review panel were the unique characteristics of the centers and laboratories preserved.

We hope that the House Subcommittee on Select Education, in reauthorizing the Institute, will address the importance of programmatic research and development. And in the process, we request that specific attention be paid to the role to be performed by the centers and laboratories.

Before we begin a historical review of the federal government's involvement with centers and laboratories, we would like to explain what we mean by "programmatic research and development."

Programmatic research is mission-oriented. It is directed toward the identification of a significant problem area before research is conducted. The results of the

research, then, contribute to the development of procedures, processes, materials, and other products that reduce or eliminate the identified problems.

In contrast, project research intends solely to generate new knowledge. Such research generally is not directed toward any particular problem area or concern. Programmatic research, on the other hand, is directed in a sustained and coordinated attack on specific problem areas.

Also, project research usually is conducted by university professors and graduate students in settings isolated from the operating school. Most of this research is small-scale. Furthermore, both what is studied and the methodology of the study are determined by the individual researcher. The studies usually take the form of controlled experiments, descriptive studies, case studies, or surveys.

Although there are several notable exceptions, most project research has had little direct influence on educational policies. Other factors, such as the availability or scarcity of economic resources for schools; court decisions; and legislation at all levels, exert far greater influence on educational policies than do results of research projects. Furthermore, no single research study dealing with any element of education has had a truly significant impact on educational practice.

Thus the centers and laboratories were expected to do more than just conduct educational research. More knowledge is needed, of course. But, research results alone seldom make a direct impact on school practice. Before it can directly impact on practice, it has to be transformed, adapted, and mixed with other knowledge. This programmatic process leads to the development of products and processes which, when used as designed, should bring about successful changes in schools. And this work, if it's to be successful, must be accomplished and evaluated by sophisticated teams of research and development scholars working closely with educational practitioners in actual settings.

CREATION OF THE CENTERS AND LABORATORIES

The first federal legislation authorizing expenditures for educational research, the Cooperative Research Act (P.L. 531), was passed by Congress in 1954.

Primarily, these funds went to university professors to conduct project research. Although this research produced some important new knowledge, officials within USOE and important educational advisory groups began to question the apparent lack of impact this work was having on school practice.

The criticism of the program was two-sided: first, the results of the project research were not leading directly enough or quickly enough to observable change and improvement in educational practice; second, the results of small-scale project research tended to be fragmented, non-cumulative, and inconclusive.

A government report assessing the results of the Cooperative Research program drew the same conclusions. Consequently, it outlined several recommendations regarding the conduct of educational research:

1. Interdisciplinary teams of personnel—including social scientists and practitioners as well as school of education faculty—should be involved.

2. Attention must be given not only to the production of knowledge but to its utilization, indicating a need for improved relationships among research, development, dissemination and implementation.

3. Sustained support on an institutional level was necessary to provide continuity and sufficient personnel and financial resources for addressing major educational problems.[1]

As a consequence of the concern about the Cooperative Research Program, the U.S. Office of Education moved to establish university-based research and development centers.

USOE ESTABLISHES R & D CENTERS

In 1963, under authority of the amended Cooperative Research Act, the U.S. Office of Education established its first two research and development centers. They were located at the University of Oregon and the University of Pittsburgh. Early in 1964 two more were created: one at the University of Wisconsin and the other at Harvard University. Eventually, six more emerged: University of Georgia; University of California, Los Angeles; The Johns Hopkins University; University of Texas, Austin; Stanford University; and the University of California, Berkeley. (Another center was established at Columbia University; however, it became a regional laboratory in subsequent years.) Two other centers,

[1] *Building Capacity for Renewal and Reform*. Washington, D.C: National Institute of Education. December, 1973.

created under provisions of the Vocational Education Act of 1963 and its amendments, also were opened. These two were located at North Carolina State University and Ohio State University.

Originally, the Office of Education gave some thought to developing a national network of such university-based centers. A USOE spokesman told the Congress in a 1964 hearing that each state should have a center.[2] An internal staff memorandum of that year proposed that 20 centers be opened by 1966 and five each year thereafter until by 1970 there would be 45.[3]

For the first time, the government was ready to invest funds in programmatic research and development. The original guidelines made this charge explicit: Research and development centers are designed to concentrate human and financial resources on a particular problem area in education over an extended period of time in an attempt to make a significant contribution toward an understanding of, and an improvement of educational practice in, the problem area. More specifically, the personnel of a center will:

1. Conduct basic and applied research studies, both of the laboratory and field type.

2. Conduct development activities designed to translate systematically research findings into educational materials or procedures and field test the developed products.

3. Demonstrate and disseminate information about the new programs or procedures which emerge from the research and development efforts. These activities may include demonstrations in a natural, or operational, setting; the preparation of films, tapes, displays, publications, and lectures; and participation in symposia and conferences.[4]

The Centers were not greeted enthusiastically by everyone. Some members of the Committee may recall the criticism directed against the U.S. Office of Education in the mid-60s. Essentially, the criticisms boiled down to one central complaint: the USOE personnel were too entrenched in the educational establishment. They were not considered to be on par with their counterparts in such agencies as the National Science Foundation. Much of this criticism came from members of the President's Science Advisory Committee.[5]

These critics had their say later when the government moved to establish the educational laboratories.

USOE ESTABLISHES EDUCATIONAL LABORATORIES

A major boost in the federal investment for educational research and development occurred when Lyndon Baines Johnson became President. One of the working groups he assembled to help him design the "Great Society" was the Task Force on Education, chaired by John Gardner, then president of a large foundation. The principal staff member was William Cannon, then program analyst from the Bureau of the Budget. Assisting Cannon was Emerson Elliott, then a budget examiner in the Bureau of the Budget.

One of the task force's suggestions was the creation of the educational laboratories. People still argue, however, over what the task force had in mind when it talked about these laboratories. And this disagreement led to many of the problems that have plagued the laboratories throughout their history.

The task force's report, which was not released to the public until after Johnson left the presidency, described these new institutions as "national" laboratories. The report says that they would be analogous to national science laboratories, like the Argonne and the Brookhaven labs. Furthermore, stated the report, "As we conceive them, the laboratories would be more closely akin to the great national laboratories of the Atomic Energy Commission and should share many of their features."

The report acknowledged the existence of the r & d centers. But labs, the task force maintained, should go beyond the scope of the centers in three respects: "(a) considerably greater emphasis on development and upon the dissemination

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[2] Hearings before the Subcommittee of the Committee on Appropriations, U.S. House of Representatives; 88th Congress, 2nd session. Feb. 17, 1964.

[3] "Research and Development Centers." Mimeographed. U.S. Government Records, DHEW, 1965-69. Box 97, LBJ Library, Austin, Texas. Nov. 23, 1964.

[4] "Application Instructions for Research Contracts." Mimeographed. Washington, D.C. U.S. Office of Education. 1963.

[5] For a complete history of this period, refer to forthcoming book, "U.S. Office of Education and Educational Research in the 60s—Some Reflections" (tentative title), by Richard Dershimer.

of innovation; (b) the use of experimental schools and extensive pilot programs in the regular schools; and (c) provisions for teacher training as an integral part of the program." [6]

The report went to the White House and on to the Department of Health, Education, and Welfare in November of 1964. A group within HEW was pulled together, including William Cannon, to incorporate the recommendations into legislation.

The final bill, the Elementary and Secondary Education Act of 1964, provided funds through Title IV for the creation of these laboratories.

The Elementary and Secondary Education Act became law on April 11, 1965. In August of that year, the Office of Education issued guidelines for the laboratories. By October 15, proposals were received. The Office of Education issued contracts in February, 1966. And by that fall, twenty laboratories were either operating or in the final stages of development. But in November, a barrage of criticism hit the Office of Education about the laboratories.

The criticism seemed to center around two issues: would the laboratories be regional or national and were they dominated by the "wrong" kind of people?

The Office of Education hedged on the issue of regional versus national for several months. In July of 1965, OE staff has guidelines for both regional and national laboratories. But, in fact, only one "national" laboratory was created, the National Program in Early Childhood Education. By the fall of 1965, the idea of creating other national laboratories had died. The reasons, stated in an internal staff committee memo of October, 1965, included:

National Educational Laboratories will be likely to perpetuate the schisms between research and development and the implementation of research results.

'Glamorous' National Laboratories will draw away the talent of the regional labs; the status differentiation will tell.

Governing boards of the National Laboratories will be comprised wholly of researchers which will not be 'sufficiently in the public interest.'

National Laboratories will be viewed as making national control of education more likely.[7]

Several policy-makers also worried that the laboratories were ignoring the science community and were dominated by the educational establishment.

An example of the high-level concern over this matter is contained in a White House memorandum of September 21, 1966. In the memo, the Special Assistant to the President for Science and Technology prefaced his point by stating: "The scientific community, with support and encouragement from the National Science Foundation and private foundations, has provided us with a model of how profound improvements in education can be brought about through a new kind of collaboration between outstanding practitioners in various fields of endeavor and school and college teachers. The President's Science Advisory Panel on Educational Research and Development (chaired by Jerrold Zacharias) has stimulated the extension of this idea . . ."

The memo's author went on to state that the laboratories "were intended to carry on and extend the model created in the sciences, and this was made publicly explicit in the President's education message of January, 1965."

And then, the author bore down on the U.S. Office of Education and its handling of the laboratories:

The centrally important OE Bureau of Research is—like most of OE—for the most part not in touch with the scholarly and artistic community and is mainly interested in method with little attention to content. This arises partly from the school and school-of-education background of the agency and of most of its personnel and partly from the convictions of the present associate commissioner for research.

The Laboratories, as established by OE, are different in important respects from what was envisioned: they are almost without exception dominated by schools of education and local and state school officials; universities are represented on boards of trustees almost invariably by persons from the school of education. Scientists, humanists, and artists have in general not been involved in the work of the Laboratories.[8]

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[6] Gardner, John W. "Report of the President's Task Force on Educatio[illegible]." Mimeographed. June 14, 1964. Task Force File, Box 1, LBJ Library, Austin, Texas.

[7] Gideonse, Hendrik D. and Mann, Dale, "The Development of Alternative Strategies Within the National Program of Educational Laboratories: A Reply to 'Distributed National Educational Programs.'" Mimeographed. U.S. Office of Education. October 14, 1965.

[8] Hornig, Donald F., White House Memorandum. Sept. 21, 1966. U.S. Government Records. LBJ Library, Austin, Texas.

A few months earlier, a set of explicit laboratory guidelines had been prepared for consideration by the Secretary of Health, Education, and Welfare. They were authored by William Cannon, now chief of the Education, Manpower, and Science Division of the Bureau of the Budget.[9] In his note of transmittal, Cannon described the writing of the guidelines as a joint project with the staff of the President's Science Advisory Committee, including John Mays. Also, Cannon said the guidelines "had been seen and commented on in substance" by Jerrold Zacharias.

Expressing obvious concern about the direction OE was taking in forming regional laboratories rather than national ones, the guidelines state:

"The laboratories should work mainly on national problems, on matters with relevance and application throughout the educational system. In view of limited competent manpower it is essential—in the early years particularly—that we devote our time to matters which will provide a significant move forward of the entire school system. On a very practical level, too much emphasis on localism or regionalism will simply generate so much pressure as to turn the program into a pork barrel." [10]

As a consequence of the controversy being generated within the administration over the laboratories, John Gardner put a freeze in the fall of 1966 on all contract negotiations with the laboratories. He then turned to an outsider to examine the quality of the laboratories under development.

This consultant was Frank Chase, then the dean of the School of Education at the University of Chicago. Dean Chase is no stranger to the House Select Subcommittee on Education. At the invitation of Chairman John Brademas, Chase testified before the Committee when it was first discussing the authorization of NIE.

During the April, 1971, hearing, Chase talked with the Committee about his early review of the laboratories:

On that day (November 18, 1966), the then Secretary of HEW John Gardner, and that Commissioner of Education, Harold Howe, made it clear that they were in urgent need of trustworthy information to determine action with respect to the new laboratories which were being assailed so strongly by critics within and without the educational establishment.

As I began my visits to the laboratories in December 1966, I found basis for the mounting criticism, but I found also basis for hope in the revitalization of educational practice through these new agencies.

By mid-January, 1957, and at intervals for the next year and a half, I reported to the Secretary, the Commissioner, and officers of the centers and laboratories on policies and practices, both within the Office of Education and among the laboratories, which seemed to jeopardize their usefulness as agencies for the improvement of education.[11]

As a consequence of Chase's review and subsequent report (Final Report: The National Program of Educational Laboratories, Bureau of Research, Office of Education, December 17, 1968), the HEW Secretary lifted the freeze on negotiations. Contracts were then eventually awarded to twenty laboratories in the following cities: Newton, Mass.; Syracuse, N.Y.; Philadelphia, Pa.; New York City; Washington, D.C.; Charleston, W.V.; Little Rock, Ark.; Atlanta, Ga.; Durham, N.C.; Detroit, Mich.; Chicago, Ill.; St. Louis, Mo.; Kansas City, Mo.; Minneapolis, Minn.; Fort Collins, Colo.; Albuquerque, N.M.; Austin, Texas; Los Angeles, Calif.; Berkeley, Calif.; and Portland, Oregon.

One of the better histories of this early-day period is provided by Stephen K. Bailey, now with the American Council of Education in Washington, D.C. As chairman of the National Advisory Committee on Education Laboratories in the late 60s, Bailey was in a good position to observe the debate about the laboratories.

Writing in 1970 on various aspects of the debate, Bailey said:

"(About regional vs. national focus.) There was great uncertainity in Washington as to whether the labs should be essentially regional resources or national resources. It really begged the issues to claim that they were both, and yet this is precisely what was claimed. The fact was that some labs (e.g., Appalachia Regional

[9] Cannon, William B., Letter to John W. Gardner. July 6, 1966. U.S. Government Records. LBJ Library, Austin, Texas.

[10] "Educational Laboratory Guidelines." U.S. Government Records. LBJ Library. Austin, Texas.

[11] Chase, Francis S., "The Mixed Report Card: Educational Research and Development in the 60s." Mimeographed. Background paper submitted to House of Representative's Select Subcommittee on Education. April, 1971.

Educational Laboratory, Charleston, W.V., and the Northwest Regional Educational Laboratory, Portland, Ore.) paid special attention to their regional needs; others (e.g., Research for Better Schools, Philadelphia, Pa.; Far West Laboratory, San Francisco Bay area; and the Southwest Regional Laboratory, Los Angeles area) acted, almost from the very beginning, as national centers working on nationwide problems. The Southwest Educational Development Laboratory in Austin, Texas, and the Central Midwestern Regional Educational Laboratory, St. Louis, focused on both regional and national needs.

"As the months and years wore on, the Washington staff as well as the National Advisory Committee on Education Laboratories drifted, perhaps inexorably, toward the 'national resource.'

"(About laboratory function) In some ways the language of the first 'guidelines' was unfortunate. Ironically, the labs destined to become the most successful were those which paid less attention to the guidelines' references to regionality and service functions. The developing groups could hardly be expected to know that the phrase was meant more to differentiate their laboratories from the 'national laboratories' that some officials wished to initiate than to present the service function as meritorious in its own right. (about laboratory's relationships) If ambiguities have surrounded function and regionality, they have also surrounded the question of relationship. Pit in another way, with whom or what must the laboratory staffs cooperate in carrying out mandates and missions?

"The most difficult problem of partnership involved relationships with Washington. For, inspite of the widely accepted position that the labs were regionally based, nonprofit corporations, the overwhelming bulk of their funding came from the federal government.

"Two years had passed since convening of the Gardner Task Force, and the ideas that group had formulated has been scrutinized and interpreted by the host of people in Washington and around the country who had some part in program implementation.

"Much of the early period was spent by the directors in searching for personnel that did not exist (or that was secure only in a strictly academic womb); trying to second-guess the interests and philosophies of Washington staff, National Advisory Committee representatives, and local boards; making commitments without knowing whether Congress would appropriate sufficient money, and at the right time; getting the word around to important constituents that an educational laboratory did in fact exist in the area." [12]

Concluding his comments, Bailey stated: "The wonder is that most of the laboratories succeeded in achieving (and during a period of confusion, mixed signals, and uncertain funding) clear statements of function that led increasingly to coherent and responsible performance." And finally, "That so many of the directors, staffs, and executive committees survived these frustrations and ambiguities is a tribute to them, and to the promise of a great idea."

LABS AND CENTERS UNDER THE OFFICE OF EDUCATION

Following Frank Chase's review of the laboratories in 1966, the major intergovernmental debate over these institutions died down. Many of the issues also disappeared. For example, although many of the new institutions carried the word "regional" in their titles, service to the region was not emphasized by the Office of Education. Instead, product development, as called for in the Gardner report, was stressed.

However, Congressional enthusiasm for many Great Society programs began to wane just about the time the laboratories and centers were establishing solid reputations as research and development institutions. By 1968, funds for the laboratory program were frozen at the previous year's level. The next year only a slight increase was allowed.

Within the Office of Education, an unofficial "cannibal" policy was put into operation. The most promising of the labs and centers were funded by closing out their sister institutions. Eliminated were the labs in Washington, D.C.; Chicago; Detroit; Little Rock; and Boston.

Now with only 15 laboratories, the Office of Education deemphasized further the notion of "regional" institutions. Some of the labs responded by dropping the word from their titles; several even changed the composition of their boards by selecting members from across the nation rather than from the immediate area.

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[12] Bailey, Stephen K., "Emergence of the Laboratory Program," *Journal of Educational Research and Development in Education*, Vol. 3, No. 2, Winter, 1970. Athens, Ga.

Eventually, due to cutbacks in funding, the Office of Education closed still more of the institutions. Support eventually was removed from centers at the University of Georgia and Harvard University; laboratories were closed in Syracuse, Minneapolis, and Atlanta.

Overall, the history of the centers and laboratories between 1968 and 1972 was characterized by uncertain funding; constantly changing officials within the Office of Education and its lab-center bureau; and shifting signals about what the government expected from the institutions.

Nevertheless, it also was a period of maturation for the labs and centers. Products were beginning to emerge from the programmatic research and development cycle. And, as important as the products themselves, the labs and centers were demonstrating that programmatic research and development work in education.

Frank Chase, who served as a consultant to the Office of Education on several occasions following his initial review of the labs and centers in 1966, reported to the House Select Subcommittee on his views of the institutions:

I think it may be said that the research and development organizations have already demonstrated that important improvements in education can be brought about through the application of research and development strategies and processes. The success of the first line of products (of the labs and centers) is sufficient to assure widespread adoptions; and the provisions for evaluation, while not yet good enough, are sufficient to generate successive improvements in the products.

One characteristic of the labs and centers is their systematic attempt to work out cycles of need assessment, specifications of objectives, analysis of alternative strategies and treatments, leading to choices among alternatives, construction of partial or tentative systems or prototypes on the basis of testing under field conditions in a variety of situations, and continuing evaluation and refinement. No other educational institutions in our society have committed themselves so fully to this recycling of processes until the intended effects are achieved to a satisfactory degree.

It is perhaps this characteristic which, although not yet fully realized, most clearly sets aside the operations of these research and development agencies from typical operations in the field of education; and it is this which represents their greatest potential and promise for the improvement of education.[13]

Others also were noting the accomplishments of the centers and laboratories. For example, in April of 1971, the results of an extensive review of USOE-developed educational products was released. This review, performed under contract by Educational Testing Service, was designed to select the 14 most outstanding products ready for national dissemination. The top five were all produced by centers and laboratories: two from the Far West Laboratory, San Francisco; and one each from the R&D Center at the University of Wisconsin, Madison; Mid-continent Regional Educational Laboratory, Kansas City, Missouri, and the R & D Center at the University of Texas, Austin. Of the top ten products, labs and centers produced nine. Other institutions with products in this top-ten list included the Southwest Cooperative Educational Laboratory, Albuquerque, N. M., and the Southwest Regional Laboratory, Los Alamitos, Calif. of the total number, all but three were produced by the centers and laboratories. The R & D Center at Ohio State University had two in the list and the Southwest Educational Development Laboratory, Austin, Texas, had one.

The laboratories and centers were under discussion in other quarters as well. During 1970, the administration began talking about a new federal agency concerned with educational research.

When James Allen was named Commissioner of Education in President Nixon's first administration, the National Advisory Committee on Educational Research sent him a letter describing accomplishments of the laboratories and centers.

As you assume your responsibilities of the Chief Education Officer of the United States, we, the members of the National Advisory Committee on Educational Laboratories, believe we have an obligation to share with you the convictions which we have reached after months of critical scrutiny of the centers and laboratories which compose the National Program of Educational Laboratories. We wish to stress the following points:

1. The program as a whole is already making substantial contributions to the advancement of education:

a. Through the development, testing, and installation of improved systems of bilingual education, early childhood education, individualized instruction, instruction in reading, and other basic subjects.

[13] Op. cit., Chase.

b. Through the adaptation of videotape recording technology to teacher preparation, individualized teacher education; the development and refinement of multimedia packages and mobile facilities to enrich instruction in small schools; the application of computer technology to instructional and administrative management and decision making.

c. Through organizational innovations, such as adminstrative structures, which facilitate educational innovations.

d. Through curriculum materials for the development of communication and problem-solving skills, systematic analysis of instruction, and imaginative use of simulation games.

e. Through the development of a social studies curriculum in urban planning and problem-solving, a program of multicultural social education, programs for the education of migrants and others from impoverished or non-stimulating environments.

f. Through many other inventive, systematically developed and carefully tested approaches to equalizing educational opportunity, increasing the effectiveness of instruction, and making education relevant to the pressing needs of our society.

2. The centers and laboratories from two important central links in a chain for moving knowledge and advance technology into the stream of educational practice:

a. A fluid but workable division of effort is emerging, with the university centers concentrating on fashioning prototype programs and systems and the laboratories emphasizing successive stages of development to bring materials and systems to a state of reliable and superior performance for the intended uses.

b. The educational laboratories in a remarkably short time have shown that nonprofit corporations under their own boards of directors can create a rewarding climate for systematic development, evaluation, and continuing modification of programs built on research findings, theoretical formulation, and tested prototypes.

c. For widespread diffusion of improved programs and technologies it is necessary for state and local school systems and institutions of higher education to play well their own essential roles in the production, transmission, and utilization of knowledge.

3. The results achieved thus far reflect the soundness of the concepts underlying the new research and development organizations and the energy and capability of staffs working under circumstances which are far from ideal.[14]

The Advisory Committee went on to recommend that the Commissioner create additional university-based centers and fill the gaps in the national laboratory network resulting from the closing of several of the institutions.

But high administration officials were thinking of other things in those days. One such idea was to result in the creation of the National Institute of Education.

PROPOSED NIE INVOLVES LABS, CENTERS

Soon after the notion of a National Institute of Education began to catch on within the administration, Roger Levien of the Rand Corp. was asked to prepare a preliminary plan for the new agency. His resulting document, *National Institute of Education: Preliminary Plan for the Proposed Institute,* was used extensively by this Committee in drafting NIE's authorizing legislation.

In his report, Levien discussed his team's investigation into the existing talent pool available to conduct educational research and development. He concluded: "There are not enough organizations with the interest and capacity to work on developmental, experimental, and problem-solving activities. There are too few sites critically sized, interdisciplinary teams can be formed to work on complex educational problems." [15]

Levien saw a tremendous need for the new Institute to establish and maintain such research and development institutions. "These institutions—labs and centers—will be essential constituents in the r & d enterprise supported by the NIE and especially important links between it and the education system. NIE will take over the principal funding of the laboratories and centers. When it does so, it should aim to create a mutually satisfactory relationship between the sponsoring agencies and these institutions." [16]

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[14] Hjelm, Howard F., and McCann, Richard A., co-editors. *Journal of Research and Development in Education.* Vol. 3, No. 2. Winter, 1970. Athens, Ga.

[15] Levien, Roger E., "National Institute of Education: Preliminary Plan for the Proposed Institute." Mimeographed. The Rand Corporation: Washington, D.C. October 30, 1970.

[16] Ibid.

Levien also addressed the need for funding programmmatic research and development work rather than concentrating on small-scale project research.

Scientists and engineers frequently refer to the need to achieve a "critical mass" in an r & d enterprise. It has come to mean the minimum size and composition of a research or development group necessary to achieve a vital, self-sustaining, creative atmosphere for the task at hand.

When the critical mass for larger tasks cannot be achieved, individual researchers tend to pursue small tasks of their own. These small tasks rarely accumulate to achieve major effects.[17]

Acknowledging the government's awareness of the need to build such critical masses for educational research and development, Levien stated:

"The r & d centers and regional educational laboratories were established in order to achieve interdisciplinary r & d groups and developing groups having sufficient size. Some of these 23 groups have begun to 'go critical,' but in total they are still a small portion of the system. Some schools of education have attempted to achieve the second kind, but their aspirations have been hindered by a lack of funds. The typical situation in education is still the one- or two-man research study, in which both participants engage part-time. There is a strong need to form larger critical masses of research and development personnel working on the central issues of education." [18]

While Levien was working on his preliminary plan, officials within the U.S. Office of Education were preparing for the eventual transfer of their programs to the new agency. One resulting document, "Institutional Support and Evaluation Policy," was authored by Charles Frye, then director of the USOE bureau governing the labs and centers.

This policy described how the government intended to fund programmatic research and development within the centers and laboratories. Although a fairly complex plan, the essential ingredients can be stated simply. That is, the government would no longer provide the centers and labs with institutional support. Instead, each of the institutions' programs would be purchased at a negotiated level for a specified period of time. Each lab and center, then, would continue in operation only as long as it had programs that the government wished to purchase.

Although we faced the prospect of losing our institutional support, we actually welcomed the Frye proposal. It provided us with flexibility, increased autonomy, and the assurance that our programs would be funded through completion.

The Frye proposal contained several critical elements necessary for its success. First, the policy called for the designation of three classes of institutions. The first would be new institutions (which NIE never chose to establish). The second were called "developing institutions." Institutions in this category were to receive "core support" in addition to their program funds. After two years of such support, they were expected to have reached a level of maturity to qualify them for "mature institution" status.

Being designated a "mature" institution had its definite advantages. For example, as the policy explained, "when additional facilities money becomes available, grants will be limited to institutions in this category." More important, mature institutions were assured of long-range support for their purchased programs. Frye said in his policy paper:

"Commitment in this phase (mature institution) is for the life of the program, as outlined in the program plan. Though such multiyear commitments can only be moral ones, the institution is assured that the question is no longer *whether* to fund the program, but *how*." [19]

The policy also called for awarding management fees to institutions with these multi-year programs. Frye predicted that the fee would average from 10 to 20 percent of the contract cost.[20]

A mature institution also would receive funds in addition to its fee and program dollars to initiate new research and development thrusts jointly approved by the contractor and the agency. These funds were labeled "independent research funds."

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[17] Ibid.
[18] Ibid.
[19] Frye, Charles, "DMI Institutional Support and Evaluation Policy." Mimeographed. U.S. Office of Education. 1971.
[20] Frye, Charles. Comment made in speech before laboratory and center directors. June, 1971. Denver, Colorado.

The importance of these interdependent conditions was well recognized by the USOE officials and the labs and centers. For example, an OE official, Ward S. Mason, now assistant director of NIE, stated:

"The management fee and independent research funds proposed in the Frye paper are absolutely essential components of the program-purchase policy and neither the policy nor the institutions are viable until and unless these fees are given official sanction and built into the funding process." [21]

While the Committee and the Congress debated the Institute's authorization, the Department of Health, Education, and Welfare intensified its planning efforts. Soon an NIE Planning Unit was in operation headed by Harry Silberman. Immediately, USOE and the centers and laboratories wondered how this new unit would respond to the Frye institutional support policy. We were pleased when Silberman wrote:

"The Planning Unit is aware of and supports the policy of differentiated support for the labs and centers, which has been developed by DMI (the USOE unit headed by Frye). Thus the policy is looked upon by the Planning Unit as an interim plan for the labs and centers which will assure that the transition of responsibility for the labs and centers to the NIE will be made smoothly and in such a way as to preserve the momentum and quality of these important national resources for educational research and development." [22]

In the early part of 1972 it seemed likely that Congress, thanks to the personal involvement of Chairman John Brademas, would authorize NIE. On January 5 of that year, the USOE issued general instructions to the centers and labs for writing their basic program plans. These plans, then, were to be given to a review panel operated by the NIE Planning Unit. This panel had the task of recommending to NIE which of the programs it should purchase from the Office of Education.

In its guidelines to the centers and labs, USOE assured the institutions that the government was serious about funding programs to completion, even if the projected completion date was five years away.

In no case does this contract period exceed three years (length of NIE's authorization). There are, however, many approved plans which specify terminal objectives extending beyond the approved contract period. If the program director intends to negotiate an option to renew the program beyond the specified contract period, a Program Addendum should be submitted.[23]

Following USOE's instructions, and buoyed by the expectations of better days ahead, we submitted program plans to the review panel. The results of the review caught us by surprise. Instead of an orderly review of programs and a smooth transfer from one agency to another, the process stunned the labs and centers. James Welch, a Washington education writer, described the review process later in an article:

"The recommendations of these specialty teams (those that reviewed the lab and center programs) went to a master panel. But the master panel was not named until later, and its membership was largely recruited by those—notably Harry Silberman—in charge of NIE planning. The panel . . . was indeed distinguished. Yet there is enough evidence to show that the membership also reflects the views of Silberman, Emerson Elliott, and others who manned NIE in the interim period between passage of the NIE legislation and the decision-making that led to the first director's appointment. Simplified, these views were to the point that the emergence of NIE was the right time to chop into the most questionable of the lab and center programs, thereby liberating money NIE would need for new directions."

"A member of the master panel, who would just as soon remain unnamed, recalls the labs-centers review: 'The climate was pretty negative. There was a general consensus that for a long time some of these institutions had remained weak; that they'd had a chance to prove themselves. A number of people argued that now was the time to chop off the weakest third of the programs. We had no specific dollar limit, but there was a feeling in the air that NIE, with its new focus, could use as much money as could be made available. We got the impression

[21] Mason, Ward S., "Issues Related to the Transfer of the R & D Centers and Educational Laboratory Programs to the National Institute of Education." Mimeographed. U.S. Office of Education. 1972.
[22] Silberman, Harry. Undated memorandum. Department of Health, Education and Welfare.
[23] "Information and Instructions for Submittal of Basic Program Plans for Educational Laboratories and Research and Development Centers." Mimeographed. U.S. Office of Education. 1971.

that our function was to give the government the courage to do what it had wanted to do for some time, so that it could say: well, all these distinguished people told us what to do, and we have little choice but to do it."' [24]

While the review was underway, Congress passed the NIE authorization. In late July of 1972, responsibility for government management of the labs and centers transferred from USOE to NIE. Quickly, the new agency established a Task Force on Lab-Center Transition. Its primary tasks were to provide management support for the review and to oversee implementation of the Frye institutional support policy, now identified by NIE as the "program purchase" policy. The change in phraseology was significant; it marked the end of the government's concern about the institutions identified as labs and centers. Instead, in the future, NIE only concerned itself with our programs.

The impact from the change in attitude hit home a short time later when the Institute announced the results of the massive review of all our programs. As the NIE director later explained to this Committee, the Institute announced on November 10, 1972, its decision to:

1. Provide three-year contracts for only 22 programs.
2. Provide two-year contracts for only 4 programs.
3. Provide contracts of one year or less to 26 programs.
4. Phase out 11 programs.
5. Reject funding to 5 other programs.

In other words, NIE gave a long-term commitment to only 32 percent of the existing lab and center programs previously supported by the U.S. Office of Education.

Even more remarkable, in retrospect, has been the Institute's consistent reference to the so-called "burden" of programs it inherited from the Office of Education. NIE simply did not inherit any lab or center programs. Rather, the Institute purchased the ones it wanted; less than half of these were given any long-term commitment.

The worst wasn't over for those centers and laboratories that survived the review process. Now we had to experience NIE's interpretation of the USOE-developed program-purchase policy.

NIE'S RELATIONSHIP WITH LABS AND CENTERS

At the conclusion of the review process, when the lab-center programs had either been purchased or terminated, the task force overseeing this process ceased to exist. At that point, then, "There was no longer a 'lab-center program,' nor, except with respect to meeting the obligations (of funding the purchased programs), was there to be any longer a special relationship between the government and the organizations created as 'labs and centers.'" [25]

The impact of the review proved disastrous to several of the specialized institutions. The Institute, in a paper on labs and centers, stated it rather succintly: "In terms of effects on institutions, the November 1972 set of decisions phased out all program support to one institution (Berkeley Research and Development Center) and led directly to the phase out of all support to two laboratories during NIE's first year of operation (laboratories at New York City and Albuquerque, N.M.) [26]

Next, the Institute took the USOE-developed "program-purchase" policy and modified it substantially. First, the Institute decided to treat all labs and centers as "mature" institutions, although clearly several were not ready for that designation. Furthermore, NIE ignored the basic guarantees that accompanied such a designation, such as management fees for all institutions (NIE judged centers ineligible and awarded the labs far less than the minimum proposed by USOE) and independent research funds for research thrusts.

Essentially, NIE construed the "program-purchase" policy as being nothing more than the Federal Procurement Regulations. NIE admitted as much in its background paper: "Thus the posture of NIE management was to view the Federal Procurement Regulations as the applicable policy." [27]

We were observing a complete shift in the government's attitude toward the procedures used to fund educational research and development. First, NIE

[24] Welch, James. "Labs and Centers: Cold Winds from Washington." *Educational Researcher*. December 1972.
[25] "Background Paper on the 'Labs and Centers'." Mimeographed. National Institute of Education. March 5, 1975.
[26] Ibid.
[27] Ibid.

insisted that it didn't need to maintan specialized institutions such as ours. Second, NIE decided to emphasize project research and policy-analysis studies rather than programmatic research and development. These decisions were made both by conscious design and in response to funding restrictions.

NIE'S ATTITUDE TOWARD R & D INSTITUTIONS

Roger Levien, in his preliminary plan for the Institute, and others (such as Frank Chase and Stephen Bailey in their 1971 testimony before this Committee) [28] strongly urged NIE to strengthen the capability of institutions to conduct programmatic research and development. However, NIE decided this was unnecessary.

Discussing the need for such institutional-building efforts, NIE revealed in its background paper on labs and centers: ". . . the aggregation of talent and management capacity needed to perform large-scale r & d can be obtained without creating dependent institutions." [29]

"Furthermore," NIE stated, "greater opportunity for the field to initiate ideas for educational r & d can be provided by solicitations that permit considerable scope for initiative by proposers than by giving r & d autonomy to a restricted set of institutions." [30]

The NIE staff argued that a sufficient talent pool existed nationwide to perform the Institute's work. We disagreed at the time, but lacked the evidence to dispute NIE's unsubstantiated claim. (It wasn't until this year that NIE finally concluded a review of the talent pool and discovered just how small it really is.)

CONSEQUENCES OF FUNDING CONSTRAINTS

It's difficult to explain exactly why NIE decided to move away from funding large-scale programmatic research and development in favor of small-scale project research and policy studies. Undoubtedly, though, funding constraints had a lot to do with it.

As this Committee recognizes, NIE's funding has fallen far short of the authorized ceiling.

[In millions of dollars]

Year	Amount requested	Amount received
1973	110	110
1974	187	75
1975	134	70
1976	80	70

As originally conceived, NIE was to have a substantial share of its initial appropriations earmarked for "base line" activities, including the lab and center programs. Over and above this base-line figure, then, NIE was expected to receive incremental increases to begin new activitieis.

Levien, in his preliminary plan for the Institute, projected the funding through 1982: [31]

BUDGETS FOR NIE

[In millions of dollars]

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Baseline budget	130	130	130	130	130	130	130	130	130	130
Budget increment	25	50	100	175	250	375	500	650	800	1,000
Total	155	180	230	305	380	505	630	780	930	1,130

[28] See prepared statements delivered by Frank S. Chase and Stephen K. Bailey before Select Subcommittee on Education, U.S. House of Representatives. February 23, 1971.
[29] Op. Cit. "Background Paper."
[30] Ibid.
[31] Op. cit. Levien.

Initially, NIE operated with considerable optimism. The Institute's management recruited staff and constructed program plans. A sizeable appropriation request was submitted to Congress for FY 74. But instead of the requested $187 million, NIE received about $75 million. At that level, even the baseline projects, including the lab and center programs, were forced to suffer cutbacks. New initiatives were greatly reduced; many were shelved.

Nevertheless, NIE continued to add staff, to formulate an aggressive research agenda, and to plan for growth. The next year's request was for $134 million. Congress sent back $70 million. At that point, even the most optimistic were forced to concede that prospects for increased funding were poor.

Understandably, the frustrations became agonizing for the Institute. Pressure mounted, both from within the Institute and from outside groups, for the start of new activities. But the question remained: How was the Institute to begin new work when the appropriations didn't even cover the cost of its commitments?

NIE found an answer: it reduced the commitment base. The lab and center programs took an across-the-board reduction of 15 percent. This was done without so much as a cursory quality review of the programs. In addition, many of the contracts were renegotiated with phase-out clauses.

At this same time, NIE announced that it was changing its emphasis. In a report to its policy-making board on January 10, 1975, NIE announced: Compared with FY 75, the decision for FY 76 has been toward dissemination, policy studies, and basic research and away from development. The great increase in FY 76 for Policy Studies reflects attention to a new audience for NIE and a new style of work which is intended to yield relatively short-term analyses. [32]

Consequently, after two years with NIE, the centers and laboratories found themselves confronting their greatest crisis: first, the Institute decided it didn't need to support institutions such as ours; and second, NIE was moving away from the kind of work that our institutions were created to perform.

At this point, we began to ask the Institute whether or not it was considering the implications of its decisions. Essentially, NIE was repeating history; that is, the agency was funding project research and policy studies much like the Office of Education did in the late 50s and early 60s. The failure of that approach has been well documented. In addition, the Institute was forcing the labs and centers into a position where they could only survive by scrambling after government contracts. Institutions that exist that way, that live off their wits and the calibre of their proposal writers, are nothing more than academic job shops. They seldom have a purpose of their own. They take whatever work is available; it isn't long before their funding agency becomes their only external audience. The eventual impact of their work on children often becomes less important than their relationship with their contracting officer. Before we were prepared to make such a drastic switch from mission-oriented r & d institutions to general-purpose contractors, we requested that the Institute undertake an outside review of its policies and procedures. After months of vacillitating, the NIE administration finally agreed to contract with a blue-ribbon panel. However, over a year passed between the time the NIE director informed his policy-making board of his intentions and when the consultant group was assembled.[33]

In the meantime, NIE was back before Congress asking for its FY 76 appropriations. When informed by the NIE spokesman that the Institute intended to reduce lab and center funding substantially, the House Appropriation Committee inserted the following language into the bill: "The Committee feels that the laboratories and centers are successful and should be continued at their current funding level." The Senate Committee went one step further by inserting a line item for continued funding of the centers and laboratories. As a consequence, this year NIE spent $26 million of its $70 million appropriation on programs within centers and laboratories.

PANEL REVIEWS NIE'S FUNDING POLICIES

The consultant group began working on its review of the Institute's funding policies in March, 1975. The panel was chaired by Roald Campbell, the highly regarded former Dean of the University of Chicago's School of Education. Several of his panel members were no strangers to the labs and centers: Harold Howe had been Commissioner of Education when laboratories first began; William Cannon had authored a set of laboratory guidelines in those days when he was with the Bureau of the Budget.

[32] Minutes, National Council on Educational Research. January 10, 1975.
[33] Minutes, National Council on Educational Research. March 13, 1974.

The panel's final report, "R & D Funding Policies of the National Institute of Education: Review and Recommendations," acknowledged many of our concerns.

The consultants minced few words commenting on NIE's treatment of labs and centers:

We are simply appalled at the elements of policy that are not in place, the apparent disregard of the history of federal involvement with the labs and centers, the lack of deliberate review of the total capacity of each institution to ascertain its suitability for a continued role in the NIE program . . . The absence of such a plan or procedure is indefensible historically, substantively, and politically.[34]

The consultants also had some thoughts about NIE's opinions of the talent pool and the best way to purchase r & d work:

We have also concluded that there is not any excess or overabundance, or even adequacy, of r & d resources, especially not resources of high quality. So we feel it is simply not true that one needs only to advertise the NIE's needs in order to have immediately an array of qualified people or organizations to chose from.

The set of people available to do education r & d and link its results to schools is too small for the job, at most no more than 10,000 people altogether, and fewer than that in person-years of effort. Regional laboratories and r & d centers include over 10 percent of the total staff now doing r & d, and consequently must be viewed as a substantial resource.

The r & d system outside the labs and centers is fragmented and hard to organize.[35]

Campbell and his panel also discussed the capabilities of the existing labs and centers. As might be expected, the panel found that some of the institutions appeared to be more capable than others. However, the consultants summarized:

Despite the criticisms we have weighed against the institutions, for us the only question about the basic concept of the laboratories is how to make it work well, not whether the laboratories should exist. The need for established, long-term research and development institutions still impresses us. And we believe that a good many of the complaints about the quality or orientation of the remaining labs must be laid directly at the door of the federal government. The federal government created the institutions to meet certain needs, and if the needs are not being met as well as they might, it seems plausible to us to examine the federal government's leadership and management, rather than to reject the concept of the laboratory structure.[36]

The bulk of the Campbell report concerns itself with management problems inside the Institute. Nevertheless, it does make specific recommendations about the centers and laboratories. One of these has a familiar ring: create four to six "national" laboratories.

Ten years ago, policy-makers debated the "regional" versus the "national" focus for the laboratories. Now, again, we are hearing a panel making the same recommendation (in some cases, the individuals making the recommendations are even the same).

Allow us a moment to review just a few characteristics of these national laboratories as suggested by the consultants:

"The organization must be protected from demands to give undue services to local and state agencies unrelated to the major r & d mission . . . we are cautioning against seeing a small number of national laboratories as places where practitioners might go and expect advice on education generally."

With all due respect to the consultants, such an attitude smacks of elitism. Even more important, it reflects a lack of understanding about how effective r & d institutions relate to the field. The Campbell panel says that these national laboratories should do extensive field testing in schools. Well, we can guess what the attitude of the school practitioners would be to our request to bring our prototype products into their schools after we've turned down their request for assistance on a problem.

Next the panel suggests: The redesigned laboratories would no longer be designated 'regional,' though we do feel they should be located in different parts of the country. So long as they expect substantial federal support in an era of very tight federal r & d dollars, they must be working on parts of the national r & d agenda, as set through a national process

[34] "R & D Funding Policies of the National Institute of Education: Review and Recommendations." Mimeographed. National Institute of Education. August, 1975.
[35] Ibid.
[36] Ibid.

Essentially, the existing laboratories and r & d centers are "national" laboratories. That is, they all work on problem areas of vital concern to the entire nation. Their products are being used in schools nationwide; even when field testing their prototype products, the labs and centers put them into as many different localities as possible.

But on the other hand, nearly all of the laboratories maintain strong "regional" ties. Allow us to cite several examples. The Northwest Regional Educational Laboratory in Portland, Oregon, has its products used nationally. But it never hesitates to work closely with its five-state region on local problems. Just recently, for example, the State of Washington was given a large federal military installation. The schools surrounding the project site were told to prepare for a tremendous enrollment increase. New buildings were needed; special educational facilities and curriculum would be required. This school district turned to the Laboratory for assistance, and received it. This work was a local problem, but a national laboratory took care of it.

Research for Better Schools, the regional laboratory in Philadelphia, Pennsylvania, has a national focus. It's products are used throughout the country. Nevertheless, it provides services unique to its three-state region. Most recently, the Laboratory completed a study for the suburban Wilmington, Delaware, school districts concerned with the problems associated with cross-district busing.

Or we can cite the Southwest Educational Development Laboratory in Austin, Texas, that has its bilingual products used across the country. It recently completed a migrant-workers study for the Texas Education Agency. The study was of little use to the rest of the country, but it certainly benefited Texas.

The research and development centers are no different. Each has a particular mission; that is, they concentrate on one major problem area, such as school organization, evaluation, or teacher education. From the beginning they have been "national" in scope. But again, they work on local and regional problems when requested.

A good example is the Center for Vocational Education at the Ohio State University. This center recently completed an evaluation of the current placement practices in Ohio schools and made recommendations to the state about factors that account for the differential enrollment rates in its vocational schools. The center doesn't stay within the state boundaries, however, when it's asked for assistance. It just completed a study for long-range planning in vocational education for the state of Rhode Island; another study provided the state of West Virginia with various options for financing its vocational education program; and in the state of New York, it prepared a report of the vocational education needs of, and resources for, the educable mentally retarded.

In other words, the labs and centers are "national" in terms of their scope of work. But they also maintain strong ties to their region and state. We don't believe it should be any other way.

The consultants go on to list another characteristic of their national laboratories: It should be clear that the unusual guarantee of continued funding will bring with it a need for an unusual degree of monitoring and review of the work. Much more than at present, an organization which wishes the kind of stability we have outlined here must expect close review of policy and management by the sponsoring Federal agency, NIE.

We believe such a recommendation has inherent danger. The panel is recommending that the federal government manage the operation of the laboratory. The influence of the practitioner, in other words, would be negligible. The laboratory would simply be an extension of the Institute, an ivory-tower think tank isolated from the practitioner it's intended to serve. Furthermore, the issue of federal control over the development of a "national" curriculum would certainly be raised somewhere.

The National Council on Educational Research already has taken the Campbell panel's recommendations under consideration. As a consequence, during its last meeting, the NCER passed a resolution that included the following:

It shall be the policy of the National Institute of Education to support the development, strengthening, and utilization of high-quality research and development institutions within the nation. The National Institute of Education shall, within the limitations of available funds and other requirements, assume responsibility for contributing to the continued health of institutions that make high quality contributions to programmatic objectives adopted by the Council.

In keeping with the general policy outlined (above), the following policies are established to guide the Institute in entering special relationships with research and development institutions:

1. *National Laboratories.*—In FY 77 the Director shall identify two to four educational research and development institutions as national laboratories.

2. *Other special relationships.*—The identification of national laboratories shall not exclude other special relationships with research and development institutions, provided such arrangements do not conflict with identifying two to four national laboratories in FY 77, and provided they contribute to the program priorities specified by the Council.

3. *Existing regional laboratories and centers.*—The intent of the Council is to ensure, insofar as possible, that existing regional laboratories and centers be strong, established parts of the research, development, and dissemination system of the nation.[37]

The National Council met the Campbell panel halfway. It instructed the Director to establish from two to four national laboratories next year. Furthermore, the NCER said these national laboratories had to be chosen from among the existing centers and laboratories. In addition, the Council emphasized the importance of an entire network of centers and laboratories to the Institute's mission.

The consultants concerned themselves with much more than just the status of centers and laboratories. The bulk of the report dealt with the Institute itself.

Essentially, what the Campbell panel identifies as NIE's major problems revolve around management issues: e.g., ". . . program staff appear almost without guidance as to how to relate to individual pieces of work through grant and contract . . ." or "the haphazard policy of monitoring . . ." or "strong distrust and miscommunication at higher levels (in the agency) where decisions such as general funding for types of activity appear to be made with little or no knowledge about institutions or projects."

Of course, it's important to keep in mind that the complaints about NIE's management practices were directed at the Institute's prior administration, not at the current NIE director. The new director was just appointed when the Campbell panel delivered its report. Consequently, he's had the job of correcting the mistakes of the previous administration. How well he performs this task is of interest to all of us concerned about the Institute.

NEW DIRECTOR APPOINTED

A few short months ago, the Administration finally announced the name of the Institute's second director, H. L. Hodgkinson. He has been on the job too short a time for us to assess completely his performance. However, from our initial contact, we have been impressed.

Hodgkinson already has moved to correct many of the administrative problems indicated by the Campbell panel. For example, just recently, he and several top associates met with the laboratory and center directors to discuss common problems in such area as program monitoring and procurement procedures. That meeting with the laboratory and center directors, incidentally, is the first ever convened by the Institute. We accept this occurrence as a positive step toward improving relationships.

It is up to the Committee, of course, to determine whether or not Hodgkinson is developing the kind of Institute it had in mind three years ago. As far as we are concerned, he is moving in the right direction.

The change is occurring just in time. Since NIE's inception, we have lost four of these specialized institutions. The remaining 15 deserve special attention now that the Institute is rethinking its funding policies.

LAB, CENTER CHARACTERISTICS

Thus far we have spent considerable time discussing the history of the federal government's involvement in funding educational research and development. Much of that history, as we have indicated, involves the centers and laboratories. And yet we have not really talked much about these institutions.

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[37] "Resolution No. 091875-18." National Council on Educational Research. National Institute of Education. September 18, 1975.

Product Impact

The total impact of the labs and centers remains largely unknown. NIE has not gone out of its way to highlight the accomplishments of these institutions, except for muted reference to them in its various requests to Congress. For example, in testimony before this Committee, Director Hodgkinson talked about his current program plans. In doing so, he referred to several exemplary programs. However, in no case did he mention that this work was being conducted by centers and laboratories. A brief review of these programs, coupled with an acknowledgement of its developer might be appropriate:

Program described by Hodgkinson in House testimony	*Developer*
"An NIE-funded project directed by the California Commission on Teacher Preparation and Licensing is currently addressing (the issue) of what teachers do that makes a difference in how well their students read and do mathematics."	Far West Laboratory has major subcontract to do this project.
"One NIE project is producing kits which enable practitioners to make a wise choice of tests and do their own evaluations."	UCLA Center for the Study of Evaluation project.
"The State of Oregon . . . now requires its high school graduates to master certain real-life skills, such as demonstrating first-aid techniques or answering a job advertisement. NIE is actively supporting such efforts. . ."	Northwest Regional Educational Laboratory project.
"NIE is also aiding local schools and school systems to change their organizational styles and structures in ways that will help them to improve their performance. Pilot studies addressing these issues are currently being carried out in urban and rural schools serving over 50,000 students, in locations ranging from Harlem and Watts to the Four Corners area of Utah."	Oregon R. & D. Center has a major contract in this program, as does the Northwest Regional Educational Laboratory.
"Texas has officially adopted a bilingual-bicultural curriculum developed with NIE funds. In addition, these NIE-funded bilingual educational materials are being used in 15 other states and in the cities of Chicago and New York."	Program produced by the Southwest Educational Development Laboratory.
"The Institute is supporting a program called Experience-based Career Education (EBCE) which can do much to change the education and work situation. During the past three years EBCE projects have been in operation in high schools in four cities—Philadelphia, Charleston, Oakland, and Tigard, Ore."	All four models developed by laboratories: Research for Better Schools; Far West Laboratory; Northwest Regional Educational Laboratory; and Appalachial Educational Laboratory.
"The Education and Work Program is also supporting research in guidance, counseling, and career awareness. For example, an NIE-developed occupational exploration curriculum permits 7th and 8th graders to experience a number of occupations and work environments as part of their regular school program. An inexpensive, practical system to help schools improve their guidance, counseling, and placement programs will be tested in 20 states."	Programs developed by Appalachia Educational Laboratory and Ohio State University R. & D. Center.
"NIE is developing bicultural curricula for Native Americans."	Northwest Regional Educational Laboratory.
"Another elementary school model, Individually Guided Education, is a comprehensive system which permits teachers and administrators to devise individual programs for each child." [38]	Wisconsin R. & D. Center.

Other NIE documents indicate the contributions made by laboratories and centers to the Institute's record of achievement. In his testimony, Hodgkinson told this Committee that ". . . over the next three years, every school district in the nation will receive an updated catalogue of NIE-sponsored products."

[38] Hodgkinson, Harold L., "Statement Before the Subcommittee on Select Education," U.S. House of Representatives, July 30, 1975

When these practitioners receive this catalog, they will have the chance to read about 578 products developed with NIE funding that will be on the market by this fall. A "product," in this case, is any tangible r & d outcome designed to improve or facilitate education. Thus a product may be a test, a textbook, a curriculum package, a teacher's guide, an administrative aide, or a whole host of other items used in the educational process. Nearly 25 percent of the products described in the catalogue are manuscripts or periodicals. Of the more substantive products—492 in total—the centers and laboratories produced 427 of them, or an impressive 87 percent of the Institute's total output.

An analysis of these lab-center products by the Institute for Educational Leadership at George Washington University produced some interesting statistics. Looking at 73 of the products that have been on the market for under three years, the Institute found they have earned 36 percent of the money invested in their development. In other words, the federal funds devoted to research, development, and dissemination of these 73 products amounted to $43,238,934. Thus far they have earned $13,788,000 in sales. And that's only, a small percentage of their anticipated gross.[39]

Also, the independent analysts found that these 73 products—nearly all produced by the labs and centers—have over 8,917,000 users. Furthermore, schools in 42 states are currently using at least 21 of these products. At the very least, schools in 3,650 different cities are using lab and center products.

When discussing specific products, the results are also impressive. For example, the complex system of Individually Guided Education, developed by the Wisconsin R & D Center, is being used in over 2,000 schools in 38 states. A reading program, developed by the same center is in use in over 4,000 schools in all 50 states, reaching an estimated 1,250,000 children. Another reading program, this one developed by the laboratory in Los Alamitos, Calif., has recorded over $4 million in sales in the past three years.

Sales are only one indicator of the extent of our products' impact. All the centers and laboratories involve schools in the field-testing of products. Currently, for example, the Ohio State University Center is working with 70,912 students, 4,139 teachers, 800 parents, and 720 business and industry representatives in the testing of its various products. This effort involves 102 local schools, 11 state departments of education, 6 colleges and universities, 9 vocational schools, and 4 technical colleges in 25 states.

Staff Characteristics

As noted in the Campbell panel's report, the centers and laboratories constitute a major research and development resource. Together, we employ ten percent of all the known educational research and development specialists in the country. And, we suspect that in terms of full-time employes, the labs and centers employ closer to 25 percent of the total number.

When the centers and laboratories were first established, some concern was expressed that they were "too dominated" by educators. Yes, in fact, we are closely tied into the educational community. We consider this to be one of our strengths.

Unless the school teacher, the principal, the central-office staff and the parents are involved in the development of an educational product, it's doomed to a life time on the shelf. The day is long gone, if it ever existed, when one could sit back in a cloistered setting and "do to" educators. They won't accept someone else's packaged solution to educational problems.

Consequently, of our professional staffs, roughly 60 percent have been classroom teachers, principals, superintendents, or state education department employes.

But the fact that we have close links to the educational community doesn't mean that we exclude representatives from other disciplines. To the contrary, we maintain multidisciplinary staffs, especially when we are working in complex problem areas.

For example, the Center for Vocational Education at Ohio State University has 144 professional staff members. Of that number, 47 have degrees in vocational education: another 50 have degrees in such areas as anthropology; English; electrical engineering; philosophy; economics; journalism; history; fine arts; sociology; political science; marketing; and library science.

The Far West Laboratory's breakdown is typical of the laboratories. Of its professional staff of 134 employes, the following specializations and number of

[39] "IEL Educational Research Impact Project: Final Report." Mimeographed. Institute for Educational Leadership, The George Washington University. Washington, D.C. October, 1975.

professionals with each heading is revealed: anthropology/history—4; counseling/special education—5; curriculum development—11; early childhood/elementary education—16; educational administration—19; English/journalism/fine arts—12; evaluation/testing and measurement/statistics—13; linguistics/psycho-linguistics/reading—5; mass communications research—4; mathematics/chemistry/engineering/biology—11; psychology/educational psychology—28; secondary and higher education—6; and sociology/political science/social science—15.

When discussing staff composition, we often are asked about the number of minority employes we have and the number of females who hold professional positions.

Each of the laboratories, as a nonprofit corporation, strictly adheres to the Equal Employment laws; furthermore, each has an affirmative action plan. And the evidence is apparent: of the 494 total professional employes within the laboratories, 255 are females, or roughly 51 percent of the total. In addition, minorities represent about 20 percent of the total professional staffs.

The centers, which operate as integral components of their host universities, also observe affirmative action employment practices.

If the Committee desires, we would be pleased to provide a complete breakdown of our staff compositions.

RECOMMENDATIONS

We believe, and we feel the evidence supports our claim, that much progress has been made as a consequence of the federal investment in educational research and development. Furthermore, we continue to believe that the National Institute of Education provides the government with the mechanism necessary to conduct this important activity. The problems experienced in the past four years are related to the agency's management.

The solution to this problem is unrelated to the question of whether or not the National Institute of Education remains a viable idea.

Recommendation 1—We recommend that the National Institute of Education be reauthorized.

We remain impressed with the wisdom of the charge given the Institute; that is, NIE should still be directed to (1) help solve or alleviate the problems of, and achieve the objectives of, American education, (2) advance the practice of education as an art, science, and profession; (3) strengthen the scientific and technological foundations of education; and (4) build an effective research and development system. We strongly subscribe to the basic charge that NIE should work "to provide every person an equal opportunity to receive an education of high quality."

The Administration is requesting that the Institute's reauthorization be built around five priority areas. We concur that priorities are necessary for the Institute, but we believe that building five specific priority areas into the authorizing legislation will impair the NIE's ability to respond to emerging needs and problems.

But even more important, we fear that these five priorities, if locked into legislation, are likely to perpetuate the Institute's management problems. For example, work in the area of Education and Work is closely related to the areas of Basic Skills and Productivity. Isolating these areas of work from each other in administrative/management units is likely to discourage the flow of information between, and the needed interaction among, diverse groups within the Institute.

Now that NIE's policy-making board, the National Council on Educational Research, has begun to assume its assigned role, we are less worried that the Institute will flit from one priority to another. In other words, the mechanism for keeping the Institute on track already exists; further direction may be counterproductive.

Recommendation 2—We recommend that the National Institute of Education be directed to build an effective research and development system; furthermore, that a substantial part of this effort be directed to strengthening the educational laboratories and research and development centers.

The Congress, in its original authorizing bill, directed the Institute to build an effective r & d system. As the Campbell panel and others point out, NIE has failed to carry out this mission. Thus in the reauthorizing bill we believe Congress should spell out for NIE that part of this mandate involves strengthening the existing laboratories and centers.

Today several of these institutions clearly display the effects of the past three years of neglect. It is not too late, however, to reverse this situation. In fact,

when the NIE was originally conceived, planners within the Office of Education and the Institute drafted a policy entitled "Institutional Support and Evaluation Plan" to build capabilities within the developing labs and centers while providing substantial support for the mature institutions. By moving to implement some semblance of this plan, the Institute could go a long way in meeting its charge to build an effective r & d system.

Rather than risk having this committee think we are arguing for carte blanche funding for our institutions, allow me to clarify what we envision.

Institutions that receive their primary support from the government have certain obligations. If a center demonstrates during this coming three-year period that it does not qualify to be described as an institution "providing nation-wide leadership in a chosen problem area," or that it cannot perform high-quality research and development work that addresses the needs and problems of the practitioner, it should be discontinued. And, if the host university doesn't assume some responsibility for the direction of the center and provide it with assistance and flexibility, then the government would be well advised to place its funding elsewhere. By the same token, if an educational laboratory does not involve the practitioner in all phases of its work, including representation on its board of directors; if it cannot demonstrate significant gains toward the solution of critical problems facing the practitioner, then the federal government should seriously consider withdrawing its support.

Recently the Institute and its policy-making board have taken a new look at the labs and centers. Already plans are underway within the Institute to establish a new working relationship with these most cohesive of all performers in the r & d system. However, it's a fact of life that agency heads come and go. The next director of NIE, like agency heads before him, may prefer to ignore the accomplishments of the past. We believe it is imperative for Congress to state flatly that this federal resource should not be destroyed out of neglect.

By working to strengthen existing laboratories and centers, we believe we can once and for all end the rhetoric about the so-called "uneven quality" among the institutions.

Recommendation 3—We recommend that the National Institute of Education be authorized for a period of three years.

Despite our positive assessment of the current NIE director, we believe the research and development agency needs continued Congressional oversight to help it stay directed to its mission. Consequently, we recommend a three-year authorization rather than a longer period.

Recommendation 4—We recommend that the National Council on Education Research be given authority to appoint an independent staff with sufficient resources to meet its Congressional charge.

We remain convinced that the charge given the National Council in its original authorizing bill is necessary; that is "Review and advise the Secretary and the Director on the status of education, educational research, and the prospective educational needs of our society (and) Present . . . such recommendations as it may deem appropriate for the strengthening of educational research, the improvement of methods of collecting and disseminating the findings of educational research, and of ensuring the implementation of educational renewal and reform based upon the findings of educational research (and) Conduct such studies as may be necessary to fulfill its functions under this section."

We believe these are necessary functions of a policy-making board. However, we don't think, based on evidence to date, that the Council is equipped to perform these functions. Consequently, we request that the reauthorization bill provide the National Council with a small staff, independent of the Institute, to assist the NCER members in performing their duties. In addition, the authorization should provide sufficient resources for the Council staff to perform its duties.

For the past three years we have observed with disappointment the way the Administration has handled appointments to the National Council. As we write this testimony, the Administration has yet to announce the replacements for Council members whose terms expired last July. Consequently, we recommend that the Council members be retained as voting members until their replacements have been confirmed.

We believe that the Council membership should be more representative of the total educational community. We have urged in the past that the Administration appoint recognized educational research and development managers, teachers, school administrators, and representatives of the school-governance community to membership on the Council. Nevertheless, we are unsure how Congress, in drafting legislation, can correct this situation.

Recommendation 5—We recommend that the National Institute of Education be assigned responsibility for supporting the training of research and development specialists in the field of education.

The Campbell consultants, as well as other groups, have recognized the undersupply of educational research and development personnel available to perform high quality work. The Congressional mandate that directs NIE to build an "effective r & d system" will be difficult to meet until there exists a sufficient talent pool in local school districts, state departments of education, and colleges and universities. Right now, the laboratories and centers employ the bulk of such talented r & d specialists. For the future, such a talent pool must be built in other agencies.

Consequently, we suggest that the Congress incorporate language in the reauthorization bill to allow for the following kinds of NIE-supported training activities:

1. Funds to support grants to mid-management employes of local and state education agencies to work within laboratories and centers for a period of time on research and development activities.

2. Awards and incentives to individuals from a variety of disciplines to pursue graduate study leading to a doctorate related to educational research.

3. A Program of post-doctoral fellowships in education research and development to convert recent graduates in other fields.

4. Apprenticeship opportunities to be required in the terms and conditions of all NIE grants and contracts.

Recommendation 6—We recommend that the National Institute of Education be directed to establish and maintain quality-control procedures for educational research and development.

The questions, "How well does it work?" and "What difference does it make?" are frequently raised about the outcomes of research and development. The laboratories and centers take the position that quality control in product development is the single most important variable in their work. However, government pressure to disseminate products, coupled with the expense of ensuring quality control, often works against us. We believe that NIE has the responsibility for developing, in conjunction with the educational practitioners and the research and development specialists, effective quality-control procedures.

Once developed, these quality-control procedures should be built into every contract and grant awarded by the Institute. Also, NIE should ensure that the contractor has sufficient resource and time to demonstrate the quality of the finished product.

Recommendation 7—We recommend that the National Institute of Education be allowed to use a variety of procurement approaches for funding ecucational research and development.

For years the Institute has claimed that an adequate number of talented r & d practitioners exists to carry out its work. Furtheremore, the Institute insists that the best way of attracting this talent is by advertising its work through "requests for proposals."

Disagreement with this belief is widespread. Most recently, the Campbell consulting group, in their report, "R & D Funding Policies of the National Institute of Education," stated:

". . . we also have strongly concluded that there is not any excess or overabundance, or even adequacy, of r & d resources, especially not resources of high quality. So we feel it is simply not true that one needs only to advertise the NIE's needs in order to have immediately an array of qualified people or organizations to choose from.

"The impression left in the field, which we tend to share, is that reliance on open, national competitions under the procedures now used by the Institute can be in part a rationalization for being ill-informed about present producers and their capacity to continue present work or redirect themselves to new areas and for avoiding the substantial task of identifying and being in touch with the diverse segments of the r & d system that should be brought together to play a part in NIE's work.

"We are simply disheartened to see the weak links between the Institute and the community of r & d performers after three years, and the apparent reliance on wasteful mass invitations for proposals to determine who is interested in and who should be considered to do NIE's work."

As a result, the consultants recommended among other things, that NIE: Review r & d procurement procedures used elsewhere in the Department of

Health, Education, and Welfare, as well as in the AEC, NASA, and NSF, to gain a broader sense of options available. Among the possibilities that should be explored are: greater use of restricted competitions, such as by region or qualifications; use of review procedures which allow program staff to work with proposers at an early stage; based on identification of resources at a university, use of block grants to a dean with discretion as to how to fund and organize the resources; use of continuous competitions in areas that have continuing interest to the NIE, with open dates and deadlines publicly announced long in advance and awards made periodically.

We believe that the reauthorization legislation should make it clear that NIE has the option to employ a wide variety of procurement strategies in supporting educational research and development.

Recommendation 8—We recommend that the National Institute of Education be authorized a total of $363 million for three years to be spent in four major areas: training, research and development, staff and expenses, and dissemination.

We recommend that NIE's budget be structured to ensure that sufficient funds are allocated to the performance of its primary mission—educational research and development. Without this structure, we fear that NIE might be pressured into spending too much of its limited resources on dissemination and not enough on research and development. We urge the Committee, therefore, to consider the following breakdown:

[In millions of dollars]

Activity	Fiscal year—		
	1977	1978	1979
Training	5	5	5
Research and development	60	75	90
Staff and expenses	10	11	12
Dissemination	20	30	40
Total	95	121	147

We believe these figures, although modest, are sufficient to sustain the important work of the Institute. We couple our desire for increased funding with an acute realization of the need to maintain fiscal responsibility in the federal budget. The funding we propose will enable the Institute, to experience steady growth; hopefully, then, at the end of three years, it will be able to return to Congress with a record of accomplishment that warrants an increased funding authorization for the future.

We recommend that the Committee establish some general guidance for the Institute regarding the proper balance between project research and policy-analysis studies on the one hand and programmatic research and development on the other. All three efforts are essential; given the limited resources of the Institute and the needs of education, however, we believe that 20 to 25 percent of NIE's research and development funds should be spent on project research and policy-analysis studies. The remaining 75 to 80 percent should be used to fund major programmatic research and development efforts addressing critical problem areas.

Turning to dissemination, we believe the government has a major role to play in helping schools adopt educational innovations. However, given the limited budget of the National Institute of Education, we cannot recommend that it be given the primary responsibility for this major effort. Rather, we recommend that NIE be given primary responsibility for increasing our knowledge of the dissemination process and that Congress direct the Department of Health, Education, and Welfare's Education Division to coordinate dissemination efforts across its various agencies. Such a combined effort would bring significant resources to bear on this critical need.

We agree that NIE should continue to devote some of dissemination funds to the support of the ERIC Clearinghouses. However, we strongly believe that dissemination involves more than simply generating awareness of new solutions to educational problems. But we also do not believe that the state of the art is sufficiently mature to recommend a single strategy. Consequently, we recommend that NIE employ a variety of actors—state departments of education, colleges and universities, teachers, the existing Title III network, and the developers themselves—in the implementation and installation process during the coming years. Simultaneously, NIE should continue to search for more effective ways of helping practitioners identify, adopt, and refine innovative educational practices.

In closing, we commend the House Subcommittee on Select Education and particularly its ranking members, Chairman John Brademas and Representative Al Quie, for their continued interest in the National Institute of Education and in the field of educational research and development.

Mr. SCANLON. I will just participate in the discussion.

Mr. BRADEMAS. Thank you.

Mr. Cannon.

Mr. CANNON. Thank you.

I am William Cannon, Dean of the LBJ School of Public Affairs at the University of Texas, and I am grateful for the committee inviting me to testify.

I, of course, support the extension of the authorization of the National Institute of Education in general, although, as others, I am concerned about the adequacy of the $80-million-a-year level, and about the short term of the authorization. It is difficult for me to believe that an adequate national research and development program can be supported at that level of financing and the goals achieved in that time period.

I have been asked and wish to, in any case, concentrate my testimony on a major element of the National Institute of Education program, namely, labs and centers.

My most recent involvement in that activity has been as one of a group of 10 consultants to National Institute of Education, and to have spent a large part of the past year reviewing labs and centers both from the angle of their conceptualization and from the angle of their practice. I can't speak for my fellow consultants but obviously I will say many things that will reflect the collective judgments of them.

In my judgment, the labs and centers have been doing good work, but in limited ways and areas and should be reviewed to determine whether there should be modifications in their operations, and it is equally important, in any judgment, in the relationships between them and National Institute of Education.

I think they can make a much more important contribution to progress in educational research and development than they have. I see a pressing need that the labs and centers can and to an extent are meeting for a special kind of educational R. & D. institution which carries on activities reaching from basic research to classroom practice.

I don't think, however, that is going to be achieved without a rearrangement in the way in which National Institute of Education and labs and centers are interacting. I think that the new arrangement has to involve a new set of directions, firm directions toward a timely solution of national priority problems and under tangible guidance and continuing support from National Institute of Education. It is only in this way we will be able to emerge with an institution whose function is to close the wide gap between the emergence of useful ideas and their use in the classroom. Labs were originally designed in fact, in my memory, to meet that need, and I think, as I will say later, they should be built upon in this respect.

On the other hand, I am dubious that university centers can. Centers are not without their advantages, and in fact they have enormous advantages for doing research, but with one or two exceptions they are unlikely to be places that are willing to work across the range of R. & D. activities to meet national priorities and schedules in a direct way.

I emphasize, therefore, I believe the concept is one to build upon. It is a concept that has embedded in it a useful idea of an institution which not only has a foot in but a standing in the three worlds involved in improving education, that is to say, in the world of research, in the world of development, and in the world of practice.

I would argue it is much more effective to modify and build on them rather than to create a set of new institutions. However, there are major problems within the existing labs and between the labs in National Institute of Education which have to be solved to reach that end. The laboratories' programs will have to be substantially re-oriented before they will be able to contribute directly and coherently to solution of national National Institute of Education problems. National Institute of Education will have to establish a new set of relationships with laboratories, including assurances of continuity, and involving a more active management approach to the laboratories. And the laboratory-center complex will have to be refined down into a small number of high quality institutions of a size large enough to provide a critical mass effort.

As I weigh the factors bearing on the dimension of the laboratory and center complex, I would visualize that the present nine centers and seven labs would yield not more than four to six of the special institutions I have been talking about. This would require $20 to $30 million a year to finance if, as I believe, the annual operating financing should reach the level of $3 to $5 million a year, and closer to $5 million.

I think that I want to say one final word there. It is to emphasize that, it is to reemphasize my support for National Institute of Education authorization extension. The laboratories and centers, of course, are not the whole of NIE's program, but are an important element of it. But in addition there should be a critical review of the number of labs and centers, and in my view present NIE appropriations for labs and centers will suffice for financing the much smaller number of units that should result from such a view.

[Prepared statement of William B. Cannon follows:]

PREPARED STATEMENT OF WILLIAM B. CANNON, DEAN OF THE LYNDON BAINES JOHNSON SCHOOL OF PUBLIC AFFAIRS, THE UNIVERSITY OF TEXAS AT AUSTIN

Mr. Chairman: I am William B. Cannon, Dean of the Lyndon Baines Johnson School of Public Affairs at the University of Texas at Austin. I am grateful for the opportunity to appear before the Sub-Committee in connection with consideration of H.R. 5988 Bill to extend the authorization for the National Institute of Education. I support the extension of the authorizations of the National Institute of Education in general, though I am concerned about the adequacy of the $80 million level. It is difficult to believe that an adequate national research and development program can be supported at that level of financing.

However, I wish to concentrate my testimony on a major element of the NIE program, namely the laboratories and centers supported by NIE. My experience with the laboratories and centers goes back to their inception in the 1960's when I was engaged in the development, design and analysis of Federal educational programs while in a staff capacity in the Bureau of the Budget, now the Office of Management and Budget. My most recent involvement has been as one of a group of 10 consultants to NIE who have spent a part of the past year reviewing the laboratories and centers, both from the angle of their conceptualization and their practice: and in reviewing NIE's relationships with them as well. Though I cannot speak for the consultants, I believe that what I will say will reflect much of the collective judgment.

My general position on the laboratories and centers is that they are doing good work in limited ways and areas; but that they should be reviewed to determine whether, with modifications in their operations and in the relationships between them and NIE, they can make a much more important contribution to process in educational R&D than they have—as I believe they can.

My judgment of the laboratories and centers is based on the extent to which they have contributed, or could, to what I see to be a pressing need: namely, for a special kind of educational R&D institution carrying on activities ranging from basic research to classroom activity, directed firmly toward timely solution national priority problems, and under tangible guidance and continuing support from NIE. In my judgment it will take this kind of arrangement to meet the need long perceived by those who have carefully surveyed the field of education, namely for an institution whose function it is to close the wide gap between the emergence of useful ideas and their use in the classroom.

The laboratories were originally designed to be that institution and to meet that need. They have progressed some distance toward doing so. They are in principle capable of being such special institutions, although major modifications in their approaches and in their relationships with NIE will have to be made, in my view, for them to become so. On the other hand it is less likely that the university centers can. Centers are not without their advantages, particularly in providing a way for university faculty with similar motivation and interests to increase and improve their research. But they are unlikely to be places which are willing to work across the spectrum of R&D activities to meet national priorities in some scheduled and direct way.

The concept of the laboratories is therefore I believe the one to build on. It incorporates a rather well worked out notion of a structured way of identifying and extracting the ideas of about how education is best done, developing them and aiding in their installation. The concept gives rise to the very useful idea of an institution which has not only a foot but standing in the three worlds involved in improving education—in the world of research and in the world of development and in the world of practice. Moreover, it is a workable concept. It is supported by experience in the field of education, including the experience of the laboratories themselves. There is also the compelling history of the great national laboratories of the United States Atomic Energy Commission, as well as of the Agricultural Extension Service.

Though I have indicated the past inadequacy of the present laboratories to the purpose I am proposing, nevertheless the present laboratories as going institutions are a base on which to build (really to rebuild) the special kind of institution I have suggested. If their contributions have been limited to date, their potential is strong. They have the enormous advantage of a beginning footing in the three worlds. I would argue that it is much more effective to modify and build on them rather than to create a set of new institutions.

However, as I have also suggested, major problems within the existing laboratories and between laboratories and NIE will have to be solved to reach such an end. The laboratories' programs will have to be substantially reoriented before they will be able to contribute directly and coherently to the solution of national educational problems. Also, NIE will have to establish a new set of relationships with laboratories, including assurances of continuity and involving a more active management approach to the laboratories. And the laboratory-center complex will have to be refined down into a small number of high quality institutions of a size large enough to provide a critical mass of effort.

Though these are important and difficult problems, they are resolvable if the government wills to do so and does it skillfully.

As a contribution to that end, I would like to present a brief discussion of each of the three problems.

First, the problem of the laboratories' program:

There is an apparent confusion about the mission of the laboratories. Visitors to laboratories must be struck with the feeling of uncertain direction and of incoherence of program. In no laboratory I visited did I get the sense of the laboratory having as a central piece of its efforts a consistent devotion to a major problem of national importance in education. I am not saying that the laboratories were not working on such problems. But the sense of being a continuing contributing partner in a national effort to deal with deservedly national problems of great importance was not present. Without a perception of active collaboration in a national effort, work on national problems tends to be uninspired or focused along the margins of the problems. Moreover, from my brief observation and from

accounts I heard from others, the laboratory programs tend to be collections of mostly separate projects which do not blend together into a whole; and which begin and end at the choice and convenience and bargaining of laboratory or NIE staff rather than in relation to some overall purpose and plan.

It is encouraging to note that the problem of mission confusion is, in principle, not capable of solution since both H.R. 5988 and, I understand, NIE would move to focus the NIE research and development program on specific national education problems. At least the laboratories may now receive clear signals on national priority problems.

But sending out clear signals is not enough. The confusion of mission relates also to the second problem I see, which is that laboratories will not be able to achieve the ends I propose for them without a change in the pattern of NIE relationships with the laboratories. For purposes of laboratory recruitment, morale, and coherent program planning, NIE should assure laboratories that they plan to support and utilize them on an ongoing basis, subject only to the crucial limitation of the ability of the laboratory to deliver high quality work for an important national purpose. In other words, NIE should establish a special relationship with the laboratories (though not all of them) which in effect, defines them as a permanent component of the national R&D effort so long as they deliver high quality performance on problems of national priority. To assure continuity to a laboratory is a commitment but not only by the government. It also involves a commitment by the laboratory so to order its own internal affairs as to be able to move and adapt as government priorities and problems change, and to avoid a dissipation of its resources on other projects.

But more than assurances of continuity from NIE are required, in my view. I believe a new, more active approach to "management" of the laboratories by NIE is required. Neither the hands-off, laissez-faire management style, nor the "projectizing" of the laboratories will meet the needs for a purposeful, organized attack on national problems. In my judgment, there has to be a close collaborative arrangement, with NIE taking an active interest in what goes on in the laboratories and taking such steps vis-a-vis the laboratories as are necessary to keep them performing at a high level.

There is no question in my mind but that NIE must take a much more vigorous approach to the laboratories, and there is little question but that the laboratories themselves are seeking for much more positive and active leadership from NIE. At the same time, I have to acknowledge that there is a considerable anxiety, from people whose judgment I respect, that "management" in a research area is a counterproductive way of eliciting the best work. Both principle and the practice are invoked by such persons to support the proposition that that research is best which is managed least; that the best performances result when individual researchers or small groups of researchers choose the problems they themselves want to work on and the way they want to work on it. Any interferences with these choices is "management" and detrimental to the performance of good research because it is detrimental to the motivation of the researchers.

But I would argue that such a view is one-sided and more appropriate to university situation than to the special kind of R&D institution I believe the laboratories should become; that is, institutions directed toward bringing about improvement in the schools within a definite if not precisely fixed time schedule. This requires an institution which will work on problems that, ultimately, the public has chosen, and which will seek to devise solutions which are pertinent to these problems.

Though I espouse a vigorous management approach by NIE, I am not at the same time advocating dictatorial or authoritarian supervision of the laboratories. The issue is really one of style and of final understandings. Under the approach to the laboratories, I propose, since the government would assume responsibility for their continuity and their overall health, ultimately the government has to call the shots, at least to the extent of making a determination whether a laboratory can and is effectively carrying out a priority purpose of the government; and of thereafter making a decision whether to continue or to withdraw support. At that broad level of ultimate authority, the government must intervene. I suppose that those who would oppose "management" of the laboratories would accept this ultimate authority. But the problems with espousing more active NIE management emerge at a different level.

The tough problems with the vigorous NIE management will arise when there is confusion and lack of clarity over whether a given laboratory's program is or is not moving to meet national needs; and in the steps the NIE should take if it

determines it is not. Such steps may require direct governmental intervention in the daily management of a laboratory. Though difficult, these are not insoluble issues. They can be resolved if NIE can evolve a management style which seeks to define wide but fixed boundaries within which the laboratories operate, intervening directly only on major matters. There is also required a style of communication between NIE and the laboratories which is more than routine or cathartic, around the important problems of education. Laboratory inputs to the national program planning would have to be given considerable respect by NIE, coming as they would then be coming from an institution which has a unique position of standing in the three worlds I have mentioned. The new style will involve NIE in learning how to and becoming comfortable in devising and arranging with laboratories to work on problems which are consistent with the talents and capabilities of a laboratory's staff and motivation; and how to make and enforce judgments adverse to laboratories where they do not have the staff or the drive to do what NIE needs.

To call upon NIE to develop such a management is not to ask for the ideal. It is, to be sure, to call for the development of a very difficult, delicate management style aimed at that most complex and yet rewarding objective of insuring that the government's work is done willingly by the best people involved operating in a non-governmental framework. There is evidence that such a style is attainable. Again I refer you to the experience of the United States Atomic Energy Commission which over the years evolved a management approach which has been capable in some area of being very direct, tightly controlled, and in other areas of being very hands-off and subtle. I see no reason why NIE cannot achieve the same ends provided it commits itself to the objective, and makes the appropriate allocations of responsibility within the agency and develops the appropriate internal organizations.

The third problem, aside from a confusion of mission, continuity and NIE management of the laboratories, is the number of laboratories in relation to the quality of their performance and to their contribution to national priorities in education research. I believe there are too many laboratories now, certainly too many laboratories for the purposes of serving national priority problems in the manner that I have suggested. It is clear, for example, that some laboratories are not aiming at and are not equipped to deal with NIE programmatic objectives and it is doubtful, on reports I have recieved, whether the laboratories in that category would be able to employ and organize a staff to do so within a feasible time period. In such laboratories, though, NIE may support individual projects. But I would not contemplate their becoming the special institutions with the special holistic relationship with NIE that I envisage.

The other main factor, however, which bears on the number of laboratories that ought to be considered as special institutions is the judgment regarding the performance of the present laboratories; that is, judgments of the quality of their performance and the critical mass of staff and resources required within them for doing the best kind of work.

With respect to the quality of the present laboratories, I have noted already that there has been much effective work done by them, by all the accounts I have received. Also, there has been much that has been trivial, poor, misdirected or simply failure. I cannot provide conclusive documentation about the quality of any given laboratory, but there was ample evidence emerging from the visits of the consultants to the laboratories, and from other data as well as from the judgments of NIE staff and expert outsiders to support a proposal that there should be a thorough review of the laboratories' performance. From what we were able to gather in our brief review, I am convinced that an NIE sponsored internal-external review will clearly show that a number of laboratories (and centers) are of irreversibly inadequate quality, at least as judged from the perspective of whether they should be a special institution with a special relationship with NIE. They could, of course, continue to be utilized by NIE on a limited project basis; and, given the past history of government involvement in their establishment, existing general support should be phased out rather than brought to an end abruptly.

My hypothesis that the present laboratory-center complex should be refined down to a much smaller size has another base besides questions of quality of laboratory programs and the appropriateness of laboratory programs for national ends. That reason has to do with a critical mass factor, by which I mean that the laboratories have to be of certain size in terms of staff and financial resources before they will yield the kind of output I have been referring to. What that size

is, is a matter of judgment, of course; but my judgment is that really none of the units have reached a substantial enough size to achieve the critical mass that is needed for them to do their jobs. My dollar measure of a critical mass is a level of NIE ongoing, annual operating support in the order of $3–5 million, and closer to $5 million.

As I weigh these three factors bearing on the dimension of the laboratory-center complex—the factors of the potential for delivering on national education R&D priorities, of quality of performance, of critical mass—I would visualize that the present nine centers and seven laboratories would yield not more than four to six of the special institutions I have proposed. This would require $12 to $30 million a year to finance, under my approach of $3–5 million for institutions. I should emphasize that even if more than the top of the range—the $30 million—were available, it would make no difference in terms of the number of special institutions I can see emerging as worthy of NIE support.

This leads me to a final central point about the laboratories and centers. In effect, I have been proposing the conversion of the sixteen existing laboratories and centers into a small number of special institutions which would be a major instrument whereby NIE achieves its program goals. The implication of this approach is that these special institutions would get priority within the budget available to NIE for such purposes. This could well mean that the remaining laboratories and centers would have to be cut back substantially, perhaps totally (though as I have said, such reductions should be softened by achieving them on a phased basis). Implicit in my view is the belief, of course, that such cut backs could not have seriously adverse consequences for educational R&D, although a number of the centers could continue to be useful for more general research purposes.

These are the central points I wish to make to the Committee. Again, I am grateful to the Committee for the invitation to appear to testify.

I would like to make two final comments. One is that my testimony has focussed on slimming down the laboratory center complex. I would not like this to be interpreted as a move toward centralization of educational R&D. By proposing these special institutions I am not opposing R&D at other places and levels in the educational area. Indeed, I strongly support building in much more R&D capacity at the local levels. I believe, moreover, that the kind of institution I am proposing will contribute to this both through better dissemination of more useful products to the local levels and by springing loose funds to support local activities that would otherwise be spent on a diffuse laboratory-center complex.

Second, I would say again that there is enough experience to suggest that the laboratories are potentially very important institutions. In fact, they are or can be institutions of critical importance because they are directed toward a function which has to be carried out if NIE is to reach its goals. In the present context and relationships, they probably cannot do so, or will do so only partially or intermittently. I urge the Committee to scrutinize them deeply, not simply as justifiable claimants for government resources but as an important instrumentality of government which harnesses private and public efforts together in a way that can meet an essential need in education.

Mr. BRADEMAS. Thank you.

First, let me express my thanks to you and Mr. Rossmiller and Mr. Scanlon for your testimony, which I think will in both cases be of very great value to our subcommittee as we consider this matter.

Both of your statements are fairly lengthy, so we will have to read them in some depth.

I might also say I am going to have to leave the Chair, I regret to say, for a few minutes for a meeting with the Speaker on the subject of "How to save New York from the White House." So you will forgive me if I do that, but I shall return as soon as the meeting is over, but I will ask Mrs. Chisholm in my absence to serve as chairman.

Now, I would, however, like to ask just one question, that is, to get comments that any of you may wish to make on the question of accountability insofar as labs and centers are concerned. You have all touched on this question in your testimony in one way or another, and I think, Mr. Rossmiller, you expressed, or used the term "elitism"

at one point in your testimony. And you, Dean Cannon, observed that in your visits you sensed a certain lack of sense of direction in some of the laboratories.

So, could you say what, in your judgment, is the purpose of the laboratories? Whom are they serving, or what are they serving? Is that a fair question?

Mr. SCANLON. It might be wise for me to respond, Mr. Chairman, since I am responsible for the operation of a laboratory and did come prepared to discuss with the committee the specifics of that operation if it is in fact of interest to the committee.

In our particular case, for example, the lab was founded in 1966, and it is governed by a board of directors, 21 members, 7 from each of the States of Pennsylvania, New Jersey, and Delaware. The membership on the board is by categories, representing urban schools, suburban schools, business and industries, private and parochial schools and State departments of higher education. So that we have in fact a diverse interest in terms of the governing board itself.

The mission, when the lab was initially created, was based on needs assessments of the region, and continuing assessments in terms of what teachers believe are the major problems they face in education and in our case they turn out to be two major ones:

First, individual instruction, how do teachers allow for individual differences in classrooms as youngsters come to school, and the second major mission is how do we translate it into humanizing education, and to make schools a little more human for pupils. That happens to be the major mission. That mission has been carried out for the past 9 years with a staff of somewhere around 100 professional people, approximately 100 people. The background of the staff is 58 percent presently are drawn from the world of education—teachers and administrators—and another 29 percent are social scientists, psychologists, economists and so on, and another 8 percent are information specialists or data handlers of one kind or another.

Of that staff, 41 percent are women and 24 percent are members of minorities, so we attempt to involve the field heavily with both people we employ and the governing structure of the Institute itself.

Translating the mission into specific programs, then, becomes the problem for the lab on an ongoing basis and the accountability then becomes one of accounting to the Board in fulfilling the mission, in accounting to the schools that are involved in the field sites and the operation of the programs themselves.

Mr. BRADEMAS. Others of you may have questions and, again, I hope you will forgive me because I have to absent myself at this time.

Mr. HOWE. Mr. Chairman, I would like to respond to your question and say at the same time how important it is for you to go to the mission you are going on.

Mr. BRADEMAS. Thank you.

Mr. HOWE. I see this question of accountability as related to the missions of the laboratories and to the responsibility of NIE to have some basis for assessing their progress on those missions. I believe that it is important for the system of laboratories to reflect the priorities which are suggested in this legislation.

For example, take the concern expressed here in the legislation for students who are socially, economically or educationally disadvantaged. This is the major conundrum of public education in the United States—changing our institutions, changing our methods of teaching and learning, and understanding how better to serve such pupils. It is extremely important to have one or more labs which see that concern as their central mission and which operate a national, indeed an international network of communications among those who are doing significant research on this subject. NIE should be well aware of what is going on in such a laboratory, checking upon it, assessing it from time to time for the benefit of a laboratory so engaged, and making sure that to the degree possible this difficult area of research is gradually building on itself, moving from research and development to application within the local schools.

That is not vastly different from the kind of thing Mr. Scanlon has just said. But I think that NIE has a more important role than he emphasized in this business of accountability.

Mr. ROSSMILLER. May I comment briefly on the matter of accountability. Ultimately all of us are accountable to the children in schools and the parents of children in schools. That is a difficult kind of accountability to get a handle on easily. But in the long run unless we deal with the problems that schools are having and children are having, we will not survive, nor should we.

More immediately, we are accountable to the funding agency for a specific piece of work that they have contracted for, and, again, if the contracting agency misreads the needs of people in schools or how to respond to them, then it will be in trouble. Ultimately it is to our clients—and those are the kids in the schools—to whom we must be accountable and to their parents and to the community at large.

Ms. CHISHOLM [presiding]. Thank you very much.

Go ahead, Dr. Cannon.

Mr. CANNON. There are different levels of answers to the question of accountability so it is possible to agree with everything that has been said and say something different.

My view is that these institutions, the labs and centers and particularly the labs, were started by the Federal Government and were started for a purpose. That leads to the question of accountability at that level. The laboratories are an alternative, and were so considered from their inception to a direct governmental agency such as onsite laboratories as NIH operates.

The Government, and I think rightly, opted to use this very complex nongovernmental institution—a private institution—to carry out Federal goals. Basically involved is the question of the private sector making choices about governmental policy. This leads to accountability on both sides.

Ms. CHISHOLM. Thank you very much.

I have a number of questions to ask. One of the criticisms of NIE has been the failure to employ minorities and women in policymaking or administrative type positions within the entire research field. This sort of criticism could be levied at the research institute or the Rand or Stanford Research Institute.

I am wondering whether or not CEDAR has some kind of program or whether or not they have employed minorities or women not in highly rated positions but in policymaking positions?

Mr. ROSSMILLER. Let me answer, and perhaps Dr. Scanlon will also want to comment.

In a word, yes, all of the labs are responsible for affirmative action and equal opportunity as independent operations. The centers are based in universities and are responsible, through their host university, for affirmative action and equal opportunity compliance.

It has been a very trying task for me—I have been Director of the center at Wisconsin since January 1973—at a time when we have been forced to reduce our staff to do what I had hoped to do in that regard, but I feel we made some progress. Currently, the Wisconsin R. & D. Center has 125 women employees, and 92 men. In 1973 we had 88 women and 77 men. So I think we increased that ratio. We employ a substantial number of women.

Ms. CHISHOLM. May I ask you, what level of positions do they hold? It is not a question of physical bodies but a question of the roles they play.

Mr. ROSSMILLER. There are several categories of employees, but we have a number of women holding titles of assistant or associate scientists and who serve as project coordinators. In the Wisconsin center there is only one director; people who head activities are called coordinators and we have a number of women who serve in those positions.

My right-hand person is a woman. There have not been vacancies in the top level administrative positions since I became director but if and when we do, we will certainly do our best to find qualified women for such positions.

We also have made progress in hiring minorities, not as much as I would like to see, but in 1973 we had one and today we have eight. I am not particularly proud of that record but at least we are going in the right direction.

Ms. CHISHOLM. Thank you.

Mr. ROSSMILLER. We have some information in our testimony, I think, Madam Chairman, that indicates the general composition of the staff in the labs.

Mr. SCANLON. I would comment that one of the reasons we recommended, in terms of the funding effort for NIE, for the committee to consider training activities that are needed was because the pool of talent is not large and certainly it is less large in terms of minorities.

We think that the training activity ought to be directed in that area to help increase the pool of talent so we can provide more opportunities. The major problem, as Dr. Rossmiller pointed out, is that there has been retrenchment of funding that has created difficulties in my institution as we moved in 1972 from 8 percent of the professional staff as minorities to 1975 where 24 percent of the professional staff is minorities. It can be done but it takes a lot of training and it is expensive and the pool is not that broad.

Ms. CHISHOLM. Thank you.

I have another question that I want to get your thoughts on. Many of the woman and minority researchers have special expertise in the problems of women and minorities and are frequently associated with very very small research groups. I am thinking, for example, of Marian Wright Edelman as one person who, with her group, did a great deal of work on title I, day care and children out of school, and addressed

both Senator Buckley and myself as we worked on the student privacy legislation or even Morris Gates who is connected with the Center for Women's Policy Studies and these persons did important work on the credit law and regulations.

I would like to know what are your thoughts on how we might utilize the talents and abilities of this type of researchers on a subcontract basis in working on large research projects funded by NIE? These are the persons who over a period of time are out there in the field and collating, these are the persons that really in so many instances have a direct relationship, not only in terms of being an academician or academic approach but being grassroots people and collating and pulling materials together and yet in a real sense are not associated with these large research groups that get money from NIE.

I just wanted the views of all of you with respect to subcontracting for these kinds of researchers who have special kind of expertise?

Mr. SCANLON. I think that is an admirable idea and it is one that most labs and centers I am sure would do if the opportunity permitted itself. We have to remember that most of the work we do in our agencies is to perform a specific piece of work for the Government which oftentimes does not call for involvement of those special groups.

I want to point of from CEDAR's point of view that we have recently done with the discussion of title IX regulations, CEDAR as an organization employed one such agency to provide training for all of its CEDAR institutions in this critical field.

Ms. CHISHOLM. Thank you.

Mr. Howe.

Mr. HOWE. The point you are making needs to be underlined, and it occurs to me that in the recommendations this group of consultants made to NIE one was that it develop a much greater awareness of the total network of research activity related to education in the United States and that as it does so it certainly should make the effort to include within that an awareness of the type of institution which you are mentioning which stands in a rather interesting relationship to research activity. It is a kind of in-between institution. It has some scholarly power but it also has more potential for communicating directly with what is going on in neighborhoods, communities and schools than perhaps some other scholarly enterprises do. That is a unique kind of institution. Many of them have popped up around the United States to meet particular needs. An awareness of these and of the roles they can play should become a part of this effort of NIE to be aware of the total research and development potential of the country.

Ms. CHISHOLM. Thank you.

Mr. Cannon, do you have some comments?

Mr. CANNON. I don't think there is much I could add to what Mr. Howe has said. The kind of enterprises you mentioned have relatively recently developed and while there is a great deal of consideration being given to their role in NIE and elsewhere I don't believe that as yet it has been figured out how precisely to use them on a mass, national systematic scale.

I am not as familiar with these kinds of organizations in education as I am in the welfare area where you have them growing up, have

informal organizations which become formal, which are essential for welfare programing in those areas. I think there is just a great deal to be learned about using these kinds of enterprises and I think is really a very high priority thing to do.

Mr. HOWE. I will make one further comment that disagrees in a sense with all of the consultants who wrote the recent report with me. We referred throughout that document to both the system of education in the United States and the system of education research and development.

Neither of these is by any stretch of the imagination a system. I don't know many people who really want education to become a system in the really systematic sense so that all interrelationships are defined and there is a natural progression of authority at different levels and that sort of thing.

So that in suggesting that NIE become more aware of the available resources and tap them more widely than it may have and keep in communication with them, I don't think we are suggesting that it necessarily dominate them or control the development of new ones of the type you have mentioned. It should rather be in communication with them.

Ms. CHISHOLM. Thank you very much.

Mr. Quie.

Mr. QUIE. Thank you.

It is good to see all of you gentlemen and good to have you before the committee again.

We got into the whole question of centers as we went over this yesterday.

The question came up, you know, you talk about labs and centers, and it seems to me the distinction that existed between the two is not as great now.

My question would be, should we continue to have two types of entities doing research—both labs and centers—or can we put them together in one?

Mr. ROSSMILLER. I believe the major distinction at this point in time is that a center is based in a university and a laboratory is not. In terms of the types of work they are doing, each in some degree is unique. But there are many commonalities.

I think that labs and centers, as they exist today, are much more alike than they are different. I am not sure that it is important to have that distinction retained other than that it does reflect the place where they are based.

Mr. SCANLON. I would agree with that. I think it is true, the labs and centers are primarily doing the same kind of effort but the real difference is the Government policy and where they are housed and that is something that evolved over the last 9 or 10 years in terms of programmatic research and development.

One of the reasons is at one point, 10 years ago, we felt programmatic development was very linear and you can do it and transpose it somewhere else. To some extent some places have tried that. My own institution with the University of Pittsburgh has done much of that and worked cooperatively in trying to have it happen.

To a large extent programmatic research and development is not that way but it is cyclical in nature and the university base that

people found is because it is equally important for them to be involved in most of the aspects of R. & D. and at the laboratories and centers people found this same thing to be true.

Mr. ROSSMILLER. I would like to add one additional comment. I believe it has been a very important advantage for the research and development center at the University of Wisconsin to be based in a land grant university that has had a long tradition of service and in which staff members can be recognized and rewarded for their contributions to serving people as well as for research and teaching.

We recognized early that one must be engaged in the entire range of activities within a mission, that is, doing research, doing developmental work to translate the results of that research into products that can be useful in schools and then working with school people—State education agencies, local school districts, and teachers—to help them adopt and use those materials in ways that are best for them. In that sense we are very much like the other centers or the laboratories.

Mr. QUIE. Like the laboratories?

Mr. ROSSMILLER. Yes.

Dr. Cannon.

Mr. CANNON. If I am not interrupting?

Mr. QUIE. No, go ahead.

Mr. CANNON. I guess I am in disagreement with what I heard.

Mr. QUIE. Good. I am glad.

Mr. CANNON. I am sure you can find one or two laboratories that are like centers and one or two centers that are like laboratories. I suppose that is about where the agreement or correspondence in their nature's ends. It is particularly gratifying to me to hear the University of Wisconsin say there is no distinction, because at least as the consultants made site visits it became clear that the University of Wisconsin center was very much like a laboratory and it was almost unique among university centers in that respect.

It can always be that a center will act like a laboratoratory but if you look at it conceptually, what you have to keep in mind when we talk about centers is that we are talking about university based institutions. By being in a university context and if they are truly in a university, they will be subject to a series of influences which a lab will not be subject to. If they are not subject to those university influences then they should not be in the university because that is the point of having them in a university.

Now those influences within a university come down to a higher degree of movement, informality, and of individual choice than comes about in say a nonuniversity kind of organization. In other words, centers are generally places where groups of interested faculty get together and do a little research or a lot of research; not a little research. I don't mean to be disparaging, centers are fine places to do research around particular problems of particular interest to them and do it on a time schedule and in the way they want to do it.

When faculty feel they have exploited a center mechanism, they go away and the center dissolves or withers on the vine. So that the center in a university or in most university contexts, universities which don't have the extension tradition of the University of Wisconsin, for example, tend to be genuine faculty type institutions

pursuing or chasing their own rabbit as they will and free to decide not to chase it when they won't.

The laboratories, at least as I conceive of them myself, are intended to be much more purposeful and directed institutions, working on priority educational problems in some definite way and according to a definite schedule.

Mr. QUIE. Before you finish there, doctor, do you feel then if the center were really true to its commitment in the institution of higher learning, in the university, it would not fulfill much of a role as a laboratory?

Mr. CANNON. That is right.

Mr. QUIE. The University of Wisconsin is really not being true?

Mr. CANNON. No. No. No. Universities have different traditions and backgrounds, and the idea of a university is one that has varying margins and boundaries, but it has to have that kind of tradition. It has to have a way of rewarding faculty such as Wisconsin apparently has, that are not the ways that you will find in many other universities.

So I don't mean or I think we were all enormously impressed with our reports coming from our colleagues who were also consulting with the University of Wisconsin operation enormously, but we thought it was a sport, which was the conclusion I took.

Mr. QUIE. Dr. Howe. I will get back to you.

Mr. HOWE. I just want to complicate the matter further but I am really picking up what Bill Cannon was saying.

There are different university traditions and styles. Dr. Cannon has the advantage of having been at the University of Chicago that has a particular style and at the University of Texas which has another. It seems to me that particularly in the major land grant universities it is conceivable with their tradition of outreach to the community on very practical terms stemming from their much earlier work in agriculture and a variety of other fields,that the possibility of this applied research on particular problems related to problems of school districts and pupils and applications of materials they work on to those problems, is more acceptable and works reasonably well.

There are a group of universities which do not have that tradition of working in the community on applied research activities and their environment, I think, would be somewhat less friendly to the laboratory type of concept.

So my complication of your query is to suggest that there are different styles in universities and therefore I guess I am agreeing a little bit, or rather disagreeing a little with Mr. Cannon in the sense that I think it is possible that a university could contain a laboratory-like activity and make it work very well.

I think that it is important not to let this conversation get bogged down on a question of terminology but really to look at what these institutions do.

Mr. QUIE. Does the difference exist because some universities are land grant, having the traditional relationship with community, as you mentioned, agriculture, and others aren't, or can't we use land grant? Maybe I ought to ask Dr. Cannon.

Mr. HOWE. I don't want to restrict the concept I applied to land grant institutions, but some universities do have a longer experience with working directly on applied problems and being in contact with

their area around about or with people interested in those problems throughout the country on an operating basis in a more direct way. Other universities tend to be more removed from this type of work and to work more on the theoretical level. They make a very great contribution when they do that. I am not disparaging that one little bit, it is a very important emphasis. I would suggest that Mr. Cannon's first affiliation (the University of Chicago) had that tradition and his new one (the University of Texas) has more of the second tradition.

Mr. QUIE. Yesterday it was suggested, and I will let you go further after this question because I would like your reaction to this, but yesterday it was suggested that we ought to fund at least the administration of centers and labs. Then from within the administration they go out and find money from the Federal Government or elsewhere for particular research so we can keep those centers and labs operating.

Dr. Cannon sounded like maybe we ought to keep labs operating like that or centers that act like labs operating like that and the rest of them can go and chase their rabbit at will.

Mr. CANNON. No. I was afraid that implication would come out of that. The basic criterion, of course, is quality of performance. You don't want to shut down a center even if it is not behaving as a lab, if it is doing good work. You simply want to keep it. I was only trying to argue it is hard to think of the centers, all nine of them, as being either laboratories now or potentially labs and it is hard to think of it because basically the question is how do you motivate faculty to participate?

In most institutions you can't motivate them to participate in applied research all the way through development, as is the conception of a lab. So I am not, I am certainly not arguing to any kind of blanket reduction in the funding of centers except—certainly, no blanket or arbitrary reduction; but it is our judgment, or some of our judgments that the facts would warrant raising serious questions about the quality of performance of a number of the present centers as of a number of the present laboratories as well.

Mr. QUIE. What about the idea mentioned yesterday of having the administrative costs picked up and then within that making certain that the lab or center can keep on in existence?

Mr. CANNON. I think that NIE has to take over the central or core financing and then I would have, myself, no objections to the laboratories or laboratory centers or whatever raising funds from other sources so long as it does not divert the laboratory from the central purpose of what NIE is trying to get done.

What that figure is I have had some concern about; the AEC national laboratories ran on a policy that generally figured that no more than 15 percent of the annual budget should come from non-AEC sources, that is to say from private or other than governmental sources. About that point you began to raise the question of whether the organization would keep focused and use its best resources on AEC problems.

I think the analogy would hold here; 15 percent may be wrong but there is some percentage.

Mr. QUIE. Why would the analogy hold here? Let's suppose you had 35 percent non-NIE funding, or further non-NIE and non-Federal, because there is other research in the Federal Government besides that in NIE?

Mr. CANNON. But the percentage has to relate to the idea of keeping the lab focused on doing a central problem and it means you can't have your best people off doing something else that is not deemed as important as the central problem and they may be off doing something else if they are out hunting for contracts all of the time or if there is a policy which lets the lab have too much second line or secondary, not secondary, but second line kind of research.

Whether the percentage is 15 or 35 is an arguable point; and the point is simply based on some experience in another area which may or may not be as analogous as you point out. If you said 75 percent on the other hand I think you have trouble.

Mr. QUIE. Would the rest of you want to comment on this question?

Mr. SCANLON. I will point out, Mr. Quie, that in our institution 4 percent of the funds of the last year came from non-NIE sources and the suggestion Mr. Cannon is making in terms of potential stability from a financial point of view rings a welcome note in my heart. I must admit that the present policies of the Institute for the last 3 years has been just the opposite, to drive the labs and centers, this particular lab, to finding other sources of funds to maintain its own credibility to work on its own mission.

That, in my opinion, has taken away a lot of time and energy of the staff in solving some problems we have to solve and I figure last year we spent about 15 percent of our resources seeking other funds to continue the mission we do.

The suggestion Mr. Cannon is making about some continuity of funding is acceptable and certainly I think it would be acceptable to most labs and centers as they compete to try to solve some of the problems they face.

Mr. QUIE. How about the 15 percent non-NIE funds or would that throw the lab off?

Mr. SCANLON. I didn't think that it did as a matter of fact. We needed that kind of flexibility which probably helps because we find ourselves working on problems that need to be solved. Problems of school violence and promising practices that the schools have found to solve the problems. We find ourselves working with the Food and Drug Administration, working with consumer education, and nutrition and new problems do emerge and you need that kind of flexibility. Fifteen percent, whether that is the right number I am not sure, but certainly some amount.

Mr. QUIE. How about CEDAR, Mr. Rossmiller?

Mr. ROSSMILLER. I would think the key is whether the work is relevant to a general mission and if it is, then I think the source of funding is really not that important. If it involves totally different kinds of problems and thrusts, then it may be a serious problem.

I think my center has been somewhat narrower in its mission than Dr. Scanlon's has and we have looked at possible additional sources of funding in terms of whether or not they are compatible with what we think we should be doing and whether they will divert our energies rather than complementing them.

I don't know if there is a magic 15 percent or 25 percent or what, I don't know.

Mr. QUIE. There is a possibility of diverting it?

Mr. ROSSMILLER. Yes. I think if you have established a mission for that center or lab, then you really have to look at alternative possibilities for funding in terms of is that compatible with the mission or will it divert your energies.

Mr. QUIE. Let me go to another question on the labs. When the labs were established, I guess there were supposed to be 20 of them but some never got off the ground. That was supposed to cover every region of the Nation but now we don't. Do you think that whole question of covering every region of the Nation is viable and, if so, do you think we ought to make some adjustments so that there is a lab or else you could say a center-laboratory covering each of them?

Mr. ROSSMILLER. Yes, I believe that would be highly desirable in the long run. How quickly we can accomplish that I don't know. I think we first need to look carefully at the existing institutions and focus on, in a sense, salvaging those that are salvagable, whether they are existing labs or centers or whotever in order to build the capability of helping people deal with their problems (and the problems differ from one region to another). Therefore, I believe regionality is appropriate.

Ms. CHISHOLM. Dr. Howe.

Mr. HOWE. I guess I have to speak about this question as a former sinner, because I had something to do with the number of laboratories that was established in the 1960's along with my predecessor, Frank Keppel, in the Office of the Commissioner of Education.

Looking back on that whole experience, I think there was a tendency to move much too rapidly, to start too many institutions that, whereas they may have had some potential, did not clearly have quality, and indeed to respond to political pressures to do exactly that with the notion of "won't it be nice for everyone". I think that was a mistake.

Since that time the Government has tried in various ways to review this system, to bring it under some discipline of quality through a variety of independent looks at it. Some of them originated in the Office of Education and some in the then Bureau of the Budget. The recent review originated at the request of the National Institute of Education. All of these exercises to review this universe of new institutions have been a necessary response to an overenthusiasm for the creation of too many institutions.

I would not want to comment on the long run, as you have just done, because in the very long run it may make sense to have more of these institutions than we now have. But addressing myself to the here and now and the practical question of trying to make the best use of existing resources and what resources are likely to be, as well as of existing expertise and how both can best be concentrated, it seems to me we should have a further effort to discipline this system. There should be a reduction in the number of these institutions supported in large part by Federal resources. In the process of reducing numbers there should be a review both of quality and of missions, because it is particularly important that the missions of the several institutions that will emerge with large Federal support coincide with the priorities that NIE has been given by the Congress.

Mr. QUIE. Let me ask you about Wisconsin that has no lab, but has a center that, it was indicated, acts somewhat like a lab.

If you were Dr. Hodgkinson, in his position, would you tend to give the University of Wisconsin a lab role, assuming the university has the capability but if you had a reduced number they would continue on as a center, or would you look somewhere else if we wanted all areas covered in a lab situation?

Mr. HOWE. I do not believe that regional or State interests ought to dominate this conversation.

As you probably know, the original recommendation for this whole universe of institutions came from a White House Task Fcore of which John Gardner was chairman. In the new institutions they were not referred to as regional education laboratories; the concept of regionality was not there. It was introduced in an ad hoc way, as the system was developed in the mid-1960's.

I do not agree with the statement that most of the problems involved here are regional in nature. I think the problems of disadvantaged children in a central city are national in nature, and that they are pretty much the same in Chicago as they are in New York, with the possible exception there is a Spanish-speaking population in New York in larger proportion than there is in Chicago. But the central problem of the disadvantaged student needs the kind of attention which concerns itself very broadly with this issue across the country.

The legislation you are proposing here addresses itself broadly to the question of children with language problems. I think that there are many common denominators of those language problems across regions and across States.

Basic research on learning is not regional in nature but international in nature, and it has nothing to do with regionality. The preparation of materials for use in the schools ought to have diverse sources, as it always has had in this country. Diverse sources will continue to operate since there is no possibility that some reduction in the number of centers financed by the Federal Government creating such materials will concentrate that activity. They will themselves be diverse; the publishing industry will still do the major job, and it is diverse.

So I see no threats of a serious kind in the notion of a smaller number of labs without the concept of regionality, and I see no great advantages in regionality.

It seems to me that the schools which research centers with various missions may relate to can conveniently be where those centers are, but may in some instances be quite separated from them to carry out various kinds of investigations about the learning of pupils.

So I think that we overdo the notion of regionality. It does seem to me, and here I am picking up the conversation we had earlier with Mr. Brademas, that it is extremely important for States and for large school districts to develop their own capability in the area of research and development, and that that capability can be augmented somewhat by the national system.

I would hope at some time that the funding that is available for this research activity from national sources would address itself squarely to the training of more people for research & development,

because I think there is a lack of really first-class people available to the States and to the local communities to carry out their particular missions in research & development. Certainly there is likely to be a very difficult problem about getting local and State funds for training people.

Mr. QUIE. I would like to pursue this further as to dissemination, but I want to go to another subject.

Mrs. CHISHOLM. One other subject.

Mr. QUIE. Yes.

When we passed the legislation back in 1972, Dr. Howe, we finally worked out a compromise where we did tie in NIE with the Assistant Secretary, separated from the Office of Education.

Now, would you give us the benefit of your widom, having once been in HEW in this field, as to how you can best handle this, or how we can best handle the whole development of policy in education from the Secretary down?

When you were in office, prior to that when Frank Keppel was, and since then, I have never been satisfied that we really found the key to make it best work so that executive branch policy would develop more smoothly in education, and so the whole area of research would be handled properly.

Still we have vocational education research outside of NIE and the handicapped research outside of NIE.

Mr. HOWE. I will be glad to give you my views, Mr. Quie. I have asked people in Congress how the present system works, and I have asked people in HEW how the present system works. I get different answers, so I am not quite sure how it does work. I find that interesting, but not necessarily helpful to education.

My long-range view is—and I said this when I left the Commissionership of Education—that this country requires a Cabinet-level Department of Education.

Mr. QUIE. I agree with you, but I would put manpower in with it.

Mr. HOWE. All right, there are various combinations that can be worked out. But we do have a $100 billion enterprise in which the Federal Government is playing an increasing role over the last 10 or 15 years, and it is likely to build its role. It seems to me that the kind of coordinating influence and the kind of planning possibilities that ought to be developed at the Federal level are unlikely to emerge without departmental organization.

Failing that, and sticking within HEW, it seems to me that there needs to be more of a clarification of the role of the Assistant Secretary, the Commissioner, and other officials who are involved. I would be inclined to clarify things by simply making the Assistant Secretary of Education the Assistant Secretary of Education and putting him or her in charge of the whole caboodle. I would have other parties such as the Commissioner and the Director of NIE clearly reporting to that person as a line responsibility. Yet there remains a historical affection for the Commissioner of Education which makes people want to keep that role visible in a way that it would not be if what I have just suggested were instituted. There seems to be a general lack of clarity about exactly to whom the Director of NIE reports.

It seems to me we can get over that historical affection and that we can clarify the intention of NIE to create an operating system that works.

Mr. QUIE. Thank you.

Mrs. CHISHOLM. Representative Cornell.

Mr. CORNELL. Thank you, Madam Chairperson.

I was very happy to hear, Mr. Howe, that statement, and yesterday I tried to lead one of the witnesses into such a statement in regard to the Department of Education, but he didn't bite.

I am sure the rest of you gentlemen would excuse me, and for the moment I would like to point out Mr. Rossmiller is a real Wisconsin product. He has spent most of his professional career in Wisconsin except for temporary diversions in, or excursions into Illinois and Florida, and I am sure that he contributed his talents to the improvement of education in those States.

I obviously have a particular interest in the Wisconsin research and development center, and I would like to ask Mr. Rossmiller if he would give us an unbiased, unprejudiced objective view of specific projects that have been undertaken by the Wisconsin research and development center. Let's hear something specific that has been done.

Mr. ROSSMILLER. I would be delighted to do that, obviously. I just happened to bring along a couple of charts that I think may help indicate what we have done and are doing. I am sorry those of you in the audience may not be able to see this, but I think, having taught large groups for several years, I should probably present it from here.

The Wisconsin research and development center has for the past 11 years focused on the development of a program of Individually Guided Education in which we have attempted to use the resources of the faculty.

A question was raised yesterday about the role of schools of education. My center is lodged in the School of Education; my advisory board includes among others the dean of the college of letters and science, the largest college on campus, the dean of the School of Education, and the assistant chancellor, so we have an opportunity to draw on the total talent of the faculty to deal with problems, research problems primarily.

We also employ people who have wide experience in schools. The university faculty members are not generally turned on to large-scale development. We need to bring people in who work with kids in schools to help the faculty members translate research findings into usable products.

I think the basic issue is whether you can have the flexibility of staffing to pursue a mission, rather than whether or not a particular kind of institution is a suitable home for a center or laboratory.

This chart shows that we obviously have had a somewhat heavier influence in the Middle West than in other sections, previously because we are located in the Middle West. The numbers on the chart indicate the number of schools that we can identify that are organized to provide individually guided education in each State. By identify, I mean we can provide a name and address and person to contact. There are many schools using the products developed at Wisconsin that are not shown on this chart.

The States colored in dark green are those with which we have formal working arrangements with State education agencies and with teacher education institutions. We believe that we must bring all of these people together if we are going to translate results of research and development into products and processes that impact on what happens in schools.

We have also recognized that we cannot efficiently serve all the schools in the country from Madison. We don't expect to extend our research involvement over all of the country, but we have encouraged the development of regional centers in California, Florida, and in Connecticut, which will provide immediate sources of help. These regional centers are based in teacher education institutions to make them accessible to school people attempting to use our processes, who need help in the changeover process.

We have developed a reading program, the Wisconsin design for reading skill development, that is being used in about 4,000 schools in all 50 States. It is a reading program that does not include new curriculum materials. Our researchers decided early in the game, in 1966 in fact, that there were adequate materials available. What was needed was a way of helping teachers use those materials appropriately. Whether we like it or not, most elementary schoolteachers have had precious little specific training in the teaching of reading and need help in knowing how to organize and use materials.

So we have developed a management system that identifies specific skills and then refers teachers to extant materials that they can use to teach those skills.

I think I have gone on long enough.

Mr. CORNELL. Might I ask you, are you satisfied with the method of dissemination you have?

Mr. ROSSMILLER. For our particular program, which is a complex educational innovation, yes. We feel that it is not a program that we can just advertise and say, in effect, this is available. It is a program where school people need help, they need advice, counsel, and support, as they make decisions on whether or not to adopt it.

We don't claim that individually guided education is right for everyone and we try to give people enough information so they can make their own decisions as to whether this program is one that is good for their school and their children. Having made that decision, they are entitled to as much support as we can provide to help them be successful in the transition.

You will note I also suggested an amount increasing by $10 million each year of that 3-year period because I think we need to build this capability and to draw on the existing agencies and institutions that have legal responsibility for education and not try to create a whole new structure.

Let's use what is already there; it is cheaper and more efficient to do it that way. I think we need more money. The fact that we have those States colored in dark green is a reflection of the fact that we had funding to work, to develop these kinds of relationships. If we had more money, every one of these States would be dark green and, I would like to have more money.

We think there are people in Montana or Washington or Arizona that are as much entitled to an opportunity to look into this system as anyone else. We simply have been forced by our limited resources to target our efforts in certain places.

Mr. CORNELL. What do you think will be the effect of the proposed authorization, the effect on your organization?

Mr. ROSSMILLER. The proposed authorization I think would be very unfortunate if you are talking about the constant $80 million level for 3 years?

I think that amount is inadequate, and even the amount we propose might be considerably larger, but I think we need to grow, to learn, to grow responsibly and demonstrate what we can do as a basis for confidence that we can do even more.

Mr. CORNELL. I notice one other thing in your statement. You mentioned about the shortage of trained people in the field and you suggested that there be $5 million for training.

I believe if I recall correctly, you stated that most of the trained people are absorbed or are employed by your labs and centers. Do you think that training on this scale would be sufficient to supply them for State agencies and other areas?

Mr. ROSSMILLER. I don't know. I think it is a recognition of the fact that this need exists. Whether it is adequate is hard to say. It would certainly begin to make a dent in the short supply of trained people in educational research and development.

We need to have more people. I am very sympathetic to the point of view that we need more research and development activity going on in State education agencies and local school systems, but I don't think we can expect it to happen until we have the talent trained to enable it to happen. This is an attempt to target on that task.

Mr. CORNELL. Thank you very much, Mr. Chairman.

Mr. BRADEMAS [presiding]. I have one observation before turning to our next panel.

Mr. Rossmiller, on page 47 you discuss dissemination. Dissemination, as I read you, is an appropriate subject for research by NIE, that is to say, you think that the process of dissemination of the fruits of research and education ought to be a subject of research, if I read you right.

Mr. ROSSMILLER. I do.

Mr. BRADEMAS. And I would not disagree with that.

I would observe, however that when we put authority for dissemination in the NIE, as distinguished from putting it in the Office of Education, we did so for another reason, not the one that you have just cited, but, and I have just asked for the report of this House committee on the NIE in 1972, and this is what the report says:

> There are two reasons the Institute must collect and disseminate the findings of education research as well as support such research. The first is "if they are to be aware of the needs of real students and real teachers and real administrators in real educational settings, researchers involved in developing new knowledge about learning must be involved with such consumers of education."

I am sure you would not disagree with that.

> Second, "the process of research and development in education is not a simple linear one, that is, a process in which basic research is followed by demonstration and evaluation and then by dissemination of a product. Rather the process is a dynamic one in which there are constant continuing interchanges back and forth between and among basic researchers, those who demonstrate the results, and the consumers, those who apply the results in teaching and learning institutions. The Institute must therefore assume responsibility, not only for development of educational materials and practices but also for their dissemination to students, teachers, administrators and other potential users."

Now, I only made that point because I confess that I was the one who felt rather deeply about that point, that we who wrote the statute felt that dissemination was an integral part for the reasons I have stated, or for the second reason I just assigned, of the process

of research in education and should not be looked upon as the end of the assembly line process.

Mr. ROSSMILLER. That is right. I agree totally.

Mr. BRADEMAS. Well, that is fine, because when you said in your statement that "Congress direct the Education Division to coordinate dissemination efforts across its various agencies," I just wanted to be sure that sentence was not at odds with that particular interpretation I just offered.

Mr. ROSSMILLER. No, Mr. Chairman. It was a concern that there are numerous dissemination activities going on within the Government, and it would be helpful if these were coordinated if for no other purpose than comparing the various methods in terms of their effectiveness.

Mr. BRADEMAS. Well, I want to reiterate my appreciation and that of the members of the subcommittee to all of you gentlemen, and my apologies for missing some of your testimony, but I assure you I will read what you prepared as well as the colloquy with very great interest.

Thank you very much indeed.

Our second panel this morning is composed of Janet Welsh Brown, president elect of the Federation of Organizations for Professional Women, Wellesley, Mass., and head of the Office of Opportunities in Science for the American Association of Advancement for Science in Washington; Philip R. Jones, president of the Council for Exceptional Children, Reston, Va., accompanied by Fred Weintraub, assistant executive secretary of the council; and Victor Van Hook, president of the American Vocational Association in Washington, and Roger Gomez of the League of United Latin American Citizens, National Education Service Centers, in Washington.

Ms. Brown and you gentlemen, you can see it is 20 past the hour and, therefore, our time is running out. If you would be kind enough to try to summarize your statements and we will put them in their entirety in the record, and then we will have time to put questions to you.

Shall we begin with Ms. Brown.

A PANEL WAS SEATED CONSISTING OF JANET WELSH BROWN, PRESIDENT, FEDERATION OF ORGANIZATIONS FOR PROFESSIONAL WOMEN, WELLESLEY, MASS., HEAD, OFFICE OF OPPORTUNITIES IN SCIENCE, AMERICAN ASSOCIATION OF ADVANCEMENT FOR SCIENCE, WASHINGTON, D.C.; PHILIP R. JONES, PRESIDENT, COUNCIL FOR EXCEPTIONAL CHILDREN, RESTON, VA., ACCOMPANIED BY FRED WEINTRAUB, ASSISTANT EXECUTIVE SECRETARY, COUNCIL FOR EXCEPTIONAL CHILDREN, RESTON, VA.; VICTOR VAN HOOK, PRESIDENT, AMERICAN VOCATIONAL ASSOCIATION, WASHINGTON, D.C.; AND ROGER GOMEZ, LEGISLATIVE ASSISTANT, LEAGUE OF UNITED LATIN AMERICAN CITIZENS (LULAC), NATIONAL EDUCATION SERVICE CENTERS, WASHINGTON, D.C.

Ms. BROWN. Yes. I am Janet Brown, and I am president of the Federation of Organizations for Professional Women. Professionally,

66-410—76——10

I work for the American Association of Advancement for Science here in Washington, where my full-time responsibility is to get more women and minorities and handicapped persons participating fully in the scientific professions. I am here today representing the federation.

I want to thank the chairperson of the subcommittee for giving the federation this opportunity to appear before you and present our concerns.

The federation is a 3-year-old organization of 85 affiliated societies representing a wide variety of educational and professional interests. Our purpose is to improve the status of women through the assurance of equal educational and employment opportunities.

Among our affiliates we have such organizations as the American Association of University Women, American Microbiological Society, the Office of Higher Education for Women of the American Council on Education, and various caucuses and commissions on the status of women in the various professional associations.

Our concern here today is that the programs and policies, the budget and the governance of NIE do not adequately reflect a selective concern for issues of special significance for women. I am also concerned very much about the inadequacies of the Institute with respect to minorities and the handicapped, but my colleagues are going to speak to those points further on, so I will restrict my comments to the inadequacies where women are concerned.

I want to suggest three ways in which the Institute can through policy and leadership effect changes in its method of operation and its impact on women.

First, through budget allocation.

Second, through assignment of responsibility throughout the entire NIE structure for the concerns of women.

And third, through evaluation of external grants and contracts in terms of their impacts on women.

Let me begin with the question of budget allocation. Fifty-two percent, plus, of the population in the United States is female, and in spite of an avowed expressed concern by the leadership of NIE since its inception that women are a major concern in the Institute, in fiscal year 1973, 1 percent of the budget went to research of special significance to women. In 1974, it rose to 2 percent; and in 1975 it was 2.3 percent, and in 1976 it is 2.5 percent.

Even this later figure, in my opinion, is inflated because the only reason they can get it to 2.5 percent—and these are figures given to us by the Director's office at NIE—the only way they can get to 2.5 percent is by including projects such as the child study center, which provides services to working mothers, and for day care centers. We in the federation do not believe that day care is solely of interest to women, but benefits men and children as well, and to include it in a list of projects that are especially for women seems to me to inflate the list.

Most of the research that has been funded by NIE which is of special significance for women has been funded by two offices alone, by the women research staff, and by the education and work group. Virtually no other research of significance has come out of any other office in the Institute—both of those offices, incidentally, are headed by women.

So our first recommendation from the federation this morning is that the staffing and the budget should reflect the avowed concern for women. Let us earmark a larger proportion of the budget for research of special significance to women.

Second, let me talk briefly about assignment of responsibility for equal opportunities throughout the Institute structures. There is a tendency whenever a special office for concerns of women or minorities or other groups is created, for the rest of the institution to kind of relax and leave the responsibility for those concerns to that special office. We must not let this happen in the NIE programing.

We need clear policy direction and vigorous leadership to make sure that the responsibility for achieving educational equity, as defined in the legislation, should be spread throughout the Institute and throughout all of its programs. Specifically, to achieve these ends, the federation recommends five things this morning.

First of all, the National Council on Educational Research, that is, the policymaking body for NIE, should reflect in its composition and in its agenda, the concerns of women. At present there are 10 members of the Council, and only one of them is a woman. Probably 50 percent should be.

It is the President's responsibility, of course, to make those appointments, but the NIE staff prepares a slate of nominees for him. Surely, they can do better.

Until the Council reflects the interest of women we recommend that the Director of the Institute appoint an ad hoc visible advisory committee, representatives of women's organizations concerned with education of women, to advise him and the Council on the setting of research priorities in this area.

No. 2, we recommend that the Council itself make a clear policy statement of the responsibilities of NIE to achieving equal opportunity for all, and clearly direct all personnel within the Institute to a responsibility for carrying out that policy.

Third, we would like to see some inservice training for the staff of NIE. It is not possible to change one's ways of behavior and one's attitudes overnight, and we believe if the staff itself got some training and help, that they would be more quickly able to see that equal opportunity was a concern in all programs of the Institute.

Fourth, we recommend that the internal staff report prepared last winter be released. This is a report which was prepared at the direction of the Acting Director of the Institute. It was to evaluate all of the programs of NIE to see to what extent they fulfilled the legislative mandate of equal opportunities. The report was done, but has never been released.

Fifth, we believe that the Institute should immediately, convene a conference to establish the research priorities in the area of women's needs. The NIE has traditionally held such conferences in other areas and in the basic skills area.

For instance, they had one on teaching of mathematics just within the last month or so. There has never been a conference called to suggest the priorities in terms of women's research.

The third category or area in which the NIE could have an impact is in the evaluation of external grants and contracts in terms of their impacts on women. Most of the money in the NIE budget goes to the laboratories and to the centers. I think the public should know

exactly what those laboratories and centers are doing to achieve the educational equality intentions of the legislation.

I was glad to hear some questions this morning on that subject. But I would really like to see that staffing chart and see exactly where the women are in the hierarchy. I think if, in fact, there are assistant professors and project directors, they are very low down on the hierarchy, and they are not in policymaking positions.

I think the fact that it was four gentlemen sitting at this table is probably a reflection of who really runs those institutes, and I feel it may also reflect a lack of thoroughgoing concern throughout the programs of the laboratories and centers for the special concerns of women.

I would not, for instance, be in favor of $10 million more for dissemination of materials, no matter how badly dissemination is required, before those materials and processes have been evaluated and examined for possible sex bias.

These are not original suggestions. They are not even new. Last January, four colleagues and myself met with the Acting Director of NIE, the chief budget officer, the Federal women's program coordinator, and other staff. We talked with them for 2 hours. They explained to us thoroughly the workings of the Institute, and we made all of the suggestions I have included above. I followed that meeting with a letter to Mr. Elliott, which is appended to my testimony, in which we summarized the suggestions.

This last week, in preparation for my appearance before the committee, I went back to NIE to find out what progress has been made. Not a single one of the suggestions has been implemented in 9½ months since our meeting with the Acting Director. The internal review was done, but has never been made public.

Since the National Institute of Education does not appear fully cognizant of its legislative responsibility toward equal educational opportunities for women, this subcommittee might want to consider incorporating into the authorizing legislation some of the suggestions I have made, that women and men cognizant of the special problems of women in education be appointed in significant numbers to the Council, that all programs and grants be evaluated for their impact on the education of women, that the NIE leadership provide their staff with clear directives on their responsibilities toward women and evaluate the staff's performance on the basis of those directives.

In closing, I would urge that the exact same kinds of directions be applied to the subject of minorities and the handicapped. Women, minorities, the handicapped—these are the groups that education in the United States has most seriously failed. The talent and the potential in these groups has largely been denied to society. Surely both practical and human considerations require that the greatest part of the research effort today be devoted to compensating for these past failures.

I would like to point out, in closing, that the initiatives that I am suggesting will not require extra appropriations. There is no extra money involved in what I am suggesting. There are matters of policy and of leadership. We, in the women's movement, believe that where there is a will there is a way. The women's organizations are quite

willing to suggest some of the ways. We hope that Congress can provide NIE with the will.

Thank you.

[Prepared statement of Dr. Janet W. Brown follows:]

PREPARED STATEMENT OF DR. JANET WELSH BROWN, PRESIDENT OF THE FEDERATION OF ORGANIZATIONS FOR PROFESSIONAL WOMEN

I am Janet Brown, president of the Federation of Organizations for Professional Women. Professionally, I am employed by the American Association for the Advancement of Science as head of the Office of Opportunities in Science, where my responsibilities are to increase the participation of women, minorities, and the handicapped in the science professions. I am here today to represent the views of the Federation of Organizations for Professional Women.

First I want to thank the Chairperson of the Subcommittee on Select Education for inviting the Federation to bring the concerns of our member organizations to the attention of the Subcommittee. The Federation, which was formed three years ago, is an umbrella organization of 85 affiliates with a wide range of professional identifications. Our purpose is to provide a mechanism for improving the status of women by promoting equality of opportunity in education and employment. Among our affiliates are the Office of Women in Higher Education of the American Council on Education, the American Microbiology Society, the American Association of University Women, the American Medical Women's Association, the Project on the Status and Education of Women of the Association of American Colleges, and women's caucuses from a variety of disciplinary professional associations.

Our concern today is that the programs and policy, the budget and governance of the National Institute of Education do not reflect adequate concern for research issues of special significance to women. The Institute is not doing enough to promote the achievement of educational equity for women as mandated in the legislation.

There are three areas in which policy direction and effective leadership could have significant effect: (1) *budget allocation;* (2) *assignment of responsibility for equal opportunity throughout the Institute structure:* and (3) *evaluation of external grants and contracts in terms of their impact on women.* Change can be accomplished in each of these areas without authorization of new funds.

1. BUDGET ALLOCATION

Although 51% of our population is female and although that half of the population experiences serious inequities at all levels of education, only a minute fraction of the NIE budget has been devoted to research to special significance to women. Since its founding the NIE's leadership has avowed a specific concern for women, yet in FY73 only 1% of the budget went to research on the educational problems of women. In FY74 it was 2%. In FY75, 2.2%. In FY76, 2.5%. These figures are based on data supplied to me by the NIE. I would point out that the Institute is able to get the figure up to 2.5% only by including some projects which I do not conceive to be women's projects, e.g. the Child Study Center that "provides day care facilities and services for working mothers." We believe that day care benefits fathers and children as much as mothers, and that such a project cannot properly be called a "woman's project."

Most of the research of special significance to women has been funded by two offices, the Women's Research Staff and the Education and Work Group, both headed by women. Virtually no research of special relevance to the problems of women has emerged from the funding of any other Group at the Institute.

Our first recommendation, therefore, is that a larger share of the research dollars authorized for the National Institute of Education be earmarked for the Women's Research Staff and the Education and Work Group which have exhibited an awareness of the problems and a willingness to fund research on them.

2. ASSIGNMENT OF RESPONSIBILITY FOR EQUAL OPPORTUNITY THROUGHOUT THE INSTITUTE STRUCTURE

There is a tendancy, once a special program for women or minorities has been established in an institution, for persons in other programs to relieve themselves of responsibility toward these groups. This must not be allowed to happen

in NIE programming. Only when all divisions of the agency make women, or minorities, or the handicapped, their conscious concern will we cease to need the special programs. This is best accomplished by clear policy direction and vigorous leadership from the top.

Sepcifically, to accomplish the objective of committing the entire Institute to educational equity for women, the Federation of Organizations for Professional Women recommends the following measures.

(1) The National Council on Educational Research, the policy making body for NIE, must reflect women's concerns both in its composition and its agenda. Of ten current members only one is a woman. There is no excuse for this underutilization of women in a field where women are so well represented. At least half of the Council members should be women. Although it is the President's responsibility to make those appointments, the NIE staff prepares a slate of nominees for the White House. They can surely do better.

Until there are sufficient women and men on the Council who will raise questions concerning the impact of Institute programs on women, the Director of the NIE should create a highly visible ad hoc advisory committee of respresentatives from education and women's organizations having an interest in the education of women. This Subcommittee could help the Council and Institute Director to shape NIE priorities.

(2) The Council itself must make a clear policy statement emphasizing the role of the Institute in the achievement of equal opportunity, and must direct *all* Groups within the Institute to take responsibility for achievement of this goal.

(3) Since past budgets and programming hase reflected an insensitivity to the problems of women and minorities, and since people need assistance in changing attitudes and behavior, the Institute should organize in-service training to raise the awareness of its staff and to help them meet the legislated objectives.

(4) The Director should release the staff report prepared last Fegruary that examined the whole range of Institute programs and evaluate the extent to which they meet the mandate of educational equity. We understand that the report contained extensive recommendations, but it has never been made public.

(5) The Institute should organize without delay a conference on women's research needs, comparable to the conferences that have been held on other substantive areas of NIE interest, e.g., Basic Skills. This and alternative ways of determining research priorities should receive serious and early consideration.

3. EVALUATION OF EXTERNAL GRANTS AND CONTRACTS IN TERMS OF THEIR IMPACT ON WOMEN

The Institute can also have an inpact through its contractors and grantees. Most of the NIE budget goes to the educational Laboratories and Centers around the country. What are they doing to achieve equal opportunity? To what extent do their research efforts achieve educational equity for women? And, indeed, to what extent do the staffing patterns within these organizations reflect equal opportunity for women?

It would be simple, for example, to sensitize all educational research and evaluation grantees to the special problems of women by requiring them to provide an impact statement assessing the expected effect of their projects on the education of women. Such assessments would have the effect of making each project review its assumptions, staffing and materials for sex bias.

These are not original suggestions; they are not even new. On January 16, 1975, five representatives of women's organizations,* including myself, met for two hours with the Acting Director of NIE, its chief budget officer, the Federal Women's Coordinator, and other staff. At that time we made these suggestions to NIE. I followed that meeting with a letter to Mr. Elliot summarizing what needed to be done. He responded indicating some of the steps NIE would take to focus its activities to achieve equity. Among the commitments made in that letter were (1) an agreement to make public the staff report evaluating the extent to which NIE met its legislatively mandated obligation to achieve the goal of educational equity; and (2) to consider training "to sharpen the staff's skills in detecting and dealing with sexism in educational research and products . . ." Copies of the correspondence are appended to my testimony.

*Ermon Hogan, National Council of Negro Women; Donna Shavlik, American Council on Education; Mary Ellen Verheyden-Hilliard, American Personnel and Guidance Association; Julia Lear, Federation of Organizations for Professional Women.

Last week in preparation for my appearance before this Subcommittee, I checked with NIE staff to determine what action had been taken on these suggestions. Not one of the items discussed in January has been implemented nine and a half months later. I understand that the internal review of NIE programs was completed and that recommendations were made to the Acting Director last February. This report was never made public.

Since the NIE does not appear fully cognizant of its legislated responsibility to work toward educational equity, this Subcommittee might consider incorporating some of the following items in the authorizing legislation: that significant numbers of women be appointed to the Council; that all programs be reviewed for their impact on women; that all contracts and grants be evaluated for their impact on educational opportunities for women; that NIE leadership provide all its staff with clear directives that the interests of women are the responsibility of all.

In closing let me say that the actions suggested above should be followed also with respect to minorities and the handicapped. Women, minorities, the handicapped—these are the groups whom American education has most seriously failed. These are the groups whose talent and potential are largely denied to society. Surely practical as well as human considerations require that the greatest part of the educational research effort go to compensating for our national failure to educate them equally.

There are not initiatives that will require extra budget appropriations. They are matters of policy and leadership. We in the women's movement are convinced that where there is a will, there is a way. Women's organizations can suggest the ways; perhaps Congress can provide NIE with the will.

FEDERATION OF ORGANIZATIONS FOR PROFESSIONAL WOMEN,
Washington, D.C., January 24, 1975.

DR. EMERSON ELLIOTT,
Acting Director,
National Institute of Education,
Washington, D.C.

DEAR DR. ELLIOTT: Thank you for meeting with us on the 16th of January. The five of us learned a great deal and have a truer picture as a result of meeting with you and your staff. I would not say, however, that we can possibly be satisfied with the picture described to us.

Your and Bernard Martin's reluctance to talk about the budget was discouraging, especially since you were notified in advance that allocation of staff and dollars was what we were most interested in. Because the figure you produced for FY'73 and FY'74 showed so low a priority for women's research (1 and 2 percent respectively), we must be forgiven the suspicion that 1975 may be even worse than its predecessors, when you fail to produce the figures for FY'75. When we hear that most of your examples of research of interest to women come from two task force areas, we suspect that your unwillingness to provide figures for FY'75 showing the budgets and staff allocated to each task force area is really based on the fact that comparison of data for different task force areas will show that the other four areas are doing little or nothing for women, and that the percentage of funds and staff devoted to the interests of 51% of the population is unconscionably small.

I think you could have been more frank than you were with respect to FY'76. Despite traditional regard for presidential priorities, you could certainly have provided percentages and ranges. In short, where budget matters were concerned, I found you and Mr. Martin singlemindedly uncommunicative.

In other respects, we learned a lot more. You made it clear that policy directives from your office are needed to impress upon your staff their individual and collective responsibility for implementing the educational equity provision of the legislation in all aspects of the program. Equally clear was the need to provide training for your staff—for task force heads, project directors, monitors, etc.—that will better prepare them to carry out their responsibilities. I was pleased to hear Ms. Shota say that she was planning such training.

We were much encouraged to hear that you have asked Mr. Barnes to study and critique the whole range of Institute programs to evaluate the extent to which they meet the mandate of educational equity. We trust that the review will be staffed adequately and completed soon, and fully discussed in the Council. Your assurance that the critique would be made public is also encouraging.

An appreciation of your influence on nominations for Council and agenda for its discussions leads me to hope for an increased number of women on the Council (at least the one-third ordered by former Secretary Richardson) and increased deliberations within Council meetings on the concerns of women. Perhaps a Council policy directive and guidelines delineating staff responsibilities in educational equity would be effective.

We hope you will follow up the idea of holding an in-depth exploratory conference on women's issues comparable to the one on Basic Skills sponsored by the NIE some time back. This and alternative ways of determining research and policy directions should receive serious and early consideration.

If we can be of any further assistance to you, please do not hesitate to call on us. Thank you for your attention.

Sincerely,

DR. JANET W. BROWN,
President-Elect.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
NATIONAL INSTITUTE OF EDUCATION,
Washington, D.C., February 12, 1975.

DR. JANET W. BROWN,
President-Elect, Federation of Organizations for Professional Women, Washington, D.C.

DEAR DR. BROWN: Thank you for your letter of January 24, in which you detail your understanding of our January 16 meeting. I was happy to learn that you and the other representatives of the Federation learned a great deal in the meeting and left with a clearer picture of the Institute.

I regret that we were unable to show you the 1976 budget on January 16, but as I explained during the meeting, the prerogative for releasing the federal budget remains with the White House. Solely for that reason, we waited to send you the enclosed data until the President announced his budget on February 3.

We appreciate your concern that girls and women have not been target populations of educational research often enough, and that frequently, when girls and women have been studied, the research was biased in favor of traditional sex-role stereotypes. To focus on the barriers to women in education which arose because of their socialization and to set a research agenda regarding women in education, the Institute established the Women's Studies Program in 1973. All of the projects in Women's Studies, in addition to many projects administered by Education and Work, focus on women as the main target population.

Although girls and women comprise the primary subjects of research in certain programs, they are included on an approximately fifty-fifty basis with boys and men in all other projects which are problem-centered, rather than targeted on a specific population. For instance, in research focused on compensatory education, data will be broken out by the sex of the students as well as by age, ethnicity, and other indicators. In this way, the Institute builds data bases pertinent to the educational needs of girls at the same time we research compensatory education.

Another example of including subjects of both sexes in a problem-oriented project is the University of Mid-America, which brings the college classroom to the students' homes via T.V. and other media. The Institute estimates that at least fifty percent of the program activities will directly address the needs of housewives and working mothers who are unable to get their education in the traditional classroom setting.

As we told the Federation representatives during the January meeting, the Institute is considering several avenues for assessing our progress in educational equity and for increasing our awareness and effectiveness in that area. We are looking forward to Dr. Edward J. Barnes' analysis of the extent of the Institute's efforts in alleviating race and sex-bias in education and the gains toward our mandate of furthering educational equity for all students. This report should be completed soon and will be available to the public.

In order to sharpen the staff's skills in detecting and dealing with sexism in educational research and products, we are considering a mini course that would focus on recent studies of sexism in educational materials and on proposed strategies for change that have emanated from major professional associations and feminist-oriented state department offices. As for the Institute's sponsoring an in-depth exploratory conference on women's educational research, my invitation still stands for Dr. Donna Shavlik to contact Dr. Schotta in this regard. Our

expectations from such a conference would include a comprehensive and rich research agenda for women's studies which would relate to teacher and student behavior in the classroom.

Regarding the composition of the Council, we invite you again to submit the names of possible candidates directly to my office. May we remind you that we would appreciate an early response so that the names may receive due consideration. Regarding the Council, we will relay your suggestion that the Council give careful deliberation to women's problems in education.

We would hope that this letter and the attachment clarify the questions that remained after our meeting. Should you have further comments or questions, please get in touch with us. Organizations such as the Federation can play an important role in shaping the objectives and goals of American education by your continued interest and participation in decisions made by agencies such as the Institute.

Sincerely,

EMERSON J. ELLIOTT,
Acting Director.

Mr. BRADEMAS. We thank you very much, Ms. Brown.

Mr. Jones.

Mr. JONES. Mr. Chairman and members of the subcommittee, we do indeed appreciate this opportunity to appear before you today.

I represent the Council for Exceptional Children. As you know, Mr. Chairman, the Council for Exceptional Children is a national organization with a membership of approximately 67,000 professionals in the field of special education.

One of the most fundamental ongoing missions of the council which has brought us to Capitol Hill so often is to seek continual improvement of Government provisions for the education of America's exceptional children and youth, both handicapped and gifted.

I am Philip Jones, current president of the council, and I am also associate professor of education in the Department of School Administration; and contrary to the typist on the east coast, I am on the faculty of Indiana University and not the University of Indiana.

Incidentally, we try to disguise this at this time of year, but after our showing last week and after we took Minnesota earlier in the football season, and we hope to take others, we are beginning to take heed. And of course, basketball is upon us.

Mr. Chairman, we certainly support your bill, H.R. 5988. In going back to the creation of NIE through the Higher Education Amendments of 1972, we note that among the central purposes were advancing the practice of education as an art, science, and profession, and the strengthening of the scientific and technological foundation of education and building an effective educational research and development system.

Certainly, the council, and I personally, can endorse those purposes and continue to applaud you for your interest in NIE. We must, of course, candidly acknowledge that NIE has had a rather stormy developmental period, but I think NIE is now on much firmer ground and can now go forward with its overall mission, which includes studies relating to the education of exceptional children.

The charge that came from the report of the recent blue ribbon panel is certainly endorsed by the council, and we perceive in these directives the broad objective of opening the door of NIE ever wider to the educational field itself. Such a goal is highly pragmatic because only through regular and constant interaction between NIE and the larger field of education can necessary and realistic objectives be

maintained by NIE which will ultimately have any concrete impact upon the education of children and youths. We welcome the open-door policy.

We would hope that the Congress through the legislative vehicles at its disposal would encourage the Institute to relate in every way possible to the field on which it is intended to support. In that context, a National Council on Educational Research which is as widely representative of the field as possible might be an appropriate subject of reauthorization deliberations in this subcommittee. Certainly I would endorse the general thrust of the previous speaker's comments relative to women on such a panel.

As you all know, Mr. Chairman, part E of the Education of the Handicapped Act has authorized for a number of years ongoing research and demonstration activities which are housed within the Bureau of Education for the Handicapped at the U.S. Office of Education, Certainly, we see this as an applied research program where, in essense, we see NIE as a basic research program.

We would hope that the Bureau would be continuing the applied and NIE would continue the basic research. It is to the Institute that we in the field of special education, look to for those fresh ideas and innovations which sustain the field over the long haul and therefore the mission of the Institute should be long term, wide ranging, and highly organized.

The potential arenas relative to the education of exceptional children and youth into which NIE may venture are many. For instance, we have before us an area which is still largely the dark side of the Moon, namely, what happens to the handicapped American beyond secondary education, providing, of course they have that? What is the continuing education potential and when is it needed? What is the current postsecondary potential for handicapped Americans and what support systems and accommodations are required? What can be done to promote useful career guidance and counseling at the secondary level?

It appears to me questions like these might be answered through a comprehensive study of the adequacy of career counseling, by secondary schools administrators, guidance counselors and post-secondary admission counselors for all children and youth, and certainly the handicapped and gifted would be a portion of that group.

We wish, Mr. Chairman, to inject one small note of caution on the issues of coordination and consistency. No one is better aware than yourself in the congressional deliberations on S. 6 of the controversial issue of the prevalence of specific learning disabilities within our school-age population. It has come to our attention that NIE has a study which suggests a direction somewhat contrary to the direction assumed by both Congress and the U.S. Office of Education.

The point of all of this is not to belabor the issue of learning disabilities, but to encourage Congress to seek regular interaction and coordination between NIE and other responsible agencies within the federal system.

Parenthetically, next week in New Orleans our CEC Division for Children with Learning Disabilities will come out with strong support to keep the field of learning disabilities from becoming a dumping ground as programs for the retarded became a few years back.

As you know, Mr. Chairman, the Education Amendments of 1974 (Public Law 93-380) authorized a new Federal education component directed toward the education of gifted and talented children. That same authorization carries a special mandate, section 404 (F), to the National Institute of Education to carry out a program of research and related activities with respect to the education of gifted and talented children.

Further, the Commissioner of Education is authorized to transfer to the Institute, and I quote, "Such sums as may be necessary to engage in that research activity."

We believe that it would be timely to seek at this point a report from the Commissioner and the Director of NIE stipulating exactly how they intend to carry out this provision. This morning I left a "Tuesday at the White House" session which was considering the field of learning disabilities, to come to this hearing, and on October 7th, I attended a Tuesday at the White House session on the gifted and talented. At that latter session Commissioner Bell signed a new OE policy statement on the gifted and talented. Obviously, then, the U.S. Office of Education is very interested in this area and I think further coordination and cooperation between OE and NIE should be encouraged.

In conclusion, Mr. Chairman, you are the major author of the House version of education legislation S. 6, which we consider to be as important in its implications for exceptional children as any congressional measure in the history of the Republic. We have no doubt this landmark legislation, now out of conference, will become law.

When it does become law, Mr. Chairman, you and your colleagues in the two Chambers will have firmly established the education of exceptional children at the top of the ladder of permanent educational priorities within our Federal system.

We can only conclude our remarks today by saying that we sincerely trust that the National Institute of Education will conform to the clear direction of the Congress by making basic research programs on learning and other concerns in the education of exceptional children a top priority within its organization as well.

Certainly, I was glad to hear my colleague, Professor Rossmiller, describe the program that is underway in Wisconsin. This relates very well to the individualized educational plans required under S. 6.

Mr. Chairman, we thank you again for the opportunity given to the Council to appear today on behalf of this Nation's exceptional children.

May we simply reiterate that we stand prepared to make the full resources of the Council for Exceptional Children available to this subcommittee as it fulfills its legislative charge with respect to the legislation before us today.

[Prepared statement of Philip R. Jones follows:]

PREPARED STATEMENT OF PHILIP R. JONES, PRESIDENT, THE COUNCIL FOR EXCEPTIONAL CHILDREN

Mr. Chairman, Members of the Subcommittee: We thank you for the opportunity to appear before this distinguished panel of the House Education and Labor Committee to offer the views and the recommendations of The Council for Exceptional Children during these important deliberations preparatory to reauthorization of the National Institute of Education.

As you know, Mr. Chairman, The Council for Exceptional Children is a national organization with a membership of approximately 67,000 professionals in the field of special education. One of the most fundamental ongoing missions of the Council, which has brought us to Capitol Hill on so many occasions through the years, is to seek continual improvement of government provisions for the education of America's exceptional children and youth, both handicapped and gifted. I am Philip R. Jones, current President of the Council, and I am also Associate Professor of Education in the Department of School Administration, University of Indiana.

Mr. Chairman, we wish to utilize this occasion to express our wholehearted endorsement of your bill, H.R. 5988; and offer a few brief comments on directions we would hope the National Institute would take in the years ahead.

We observe that the legislation creating NIE, the memorable Higher Education Amendments of 1972, provides for: ". . . advancing the practice of education, as an art, science, and profession; the strengthening of the scientific and technological foundations of education; and building an effective educational research and development system."

The fundamental premise upon which the Institute was created remains, now as then, both rational and practical. Moreover, as we testify before this distinguished panel today, the Council wishes, as it has so often in the past both formally and informally, to acknowledge and applaud the paramount role of yourself, Mr. Chairman, in the original design and creation of the National Institute of Education. We heartily endorse reauthorization of NIE, as proposed in H.R. 5988.

Needless to say, in any progress report with respect to NIE, one must candidly acknowledge the necessary preoccupation with a lengthy, and quite stormy, appropriations debate. It goes without saying that NIE had a perilous infancy; but these hearings in November of 1975 find an NIE which is clearly stabilized for the immediate future, and, thus, the occasion of such public hearings provides a most propitious time for optimistic discussion of "where we go from here."

In that context, we observe that a distinguished panel of consultants recently offered a series of recommendations with respect to directions for NIE which were submitted to the National Council on Educational Research, policy-making panel of the Institute. The theme of those recommendations was undoubtedly the assumption of "vigorous leadership" by NIE, and included the suggestions that NIE broaden the base of people, institutions, and agencies involved in education research, support a limited number of "national education laboratories," improve its overall communications and monitoring of projects, and otherwise begin coordinating the entire National effort in education research and development.

Consequent to the report of that blue-ribbon panel, the National Council on Educational Research directed NIE to take the following action steps:

Review the capabilities of all existing regional education laboratories and centers;

Review current NIE programs for strengthening the research and development capabilities of local and State education agencies;

Establish special relationships with research and development institutions, including the identification of two to four national education research laboratories to be selected from among the existing regional laboratories and centers;

Study the "current health" of fundamental education research, the role of NIE and other Federal agencies in supporting such research, and possible changes in policy that might be considered by the Council or other governmental bodies;

Report annually to the Council on NIE progress in broadening the participation of minority persons and women in national education research and development activities.

The Council heartily endorses both the specifics and the general implications of these "marching orders" for the Institute. We perceive in these directives the broad objective of opening the door of NIE ever wider to the education field itself. Such a goal is highly pragmatic because only through regular and constant interaction between NIE and the larger field of education can necessary and realistic objectives be maintained by NIE which will ultimately have any concrete impact upon the education of children and youth. We in the field of special education welcome this expanded "open door" policy, and wish to acknowledge the notable increase in useful communication between our own organization and the Institute, especially within the last year.

We would hope that the Congress, through the legislative vehicles at its disposal, would encourage the Institute to relate in every way possible to the field which it is intended to support. In that context, a National Council on Educational Research which is as widely representative of the field as possible might be an appropriate subject of reauthorization deliberations in this subcommitt

BASIC AND APPLIED

As you well know, Mr. Chairman, Part E of the Education of the Handicapped Act has authorized for a number of years on-going research and demonstration activities which are housed within the Bureau of Education for the Handicapped at the U.S. Office of Education.

This research component seeks to improve the effectiveness and efficiency of the educational system for handicapped children by supporting the development and validation of new service models and techniques; by packaging information into usable form; and by systematically assuring that this information is placed in appropriate hands. Activities are designed so that quality research and development products can be expeditiously integrated into the educational delivery system.

The Council supports the continued maintenance of a research and demonstration component within BEH itself because, as the previous summary of that component clearly suggests, R. and D. which is designed on a regular basis for *immediate* utilization within the school systems should most appropriately be integrated within the overall operation of the Federal *action agency* for the education of exceptional children.

The Council perceives the research mission of the Institute as essentially distinct from that of BEH, though equally important. The Institute must lead the way in the long-term development of educational potential, and therefore has a continuing mission of basic research into the education of handicapped children. Research at BEH, on the other hand, may be best characterized as on-going, critically needed, applied research.

It is to the Institute that we in the field of special education look to for those fresh ideas and innovations which sustain the field "over the long haul," and, therefore, the mission of the Institute should be long-term, wide-ranging, and highly organized.

The potential arenas relative to the education of exceptional children and youth into which NIE may venture are legion. For instance, we have before us an area which is still largely the "dark side of the moon," namely: "What happens to handicapped Americans beyond secondary education (providing they have even that)?" "What is the continuing education potential, and when is it needed?" "What is the current post-secondary potential for handicapped Americans, and what support systems and accommodations are required?" "What can be done to promote useful career guidance and counselling at the secondary level?"

COORDINATION

We wish, Mr. Chairman, to inject one small note of caution on the issues of coordination and consistency. No one is better aware than yourself, Mr. Chairman, given the recent deliberations on S. 6, of the controversial issue of the prevalence of specific lerning disabilities within our school-age population. It has come to our attention that NIE has published a study which suggests a direction on that matter somewhat contrary to the direction being assumed by both the Congress and the Office of Education.

The point of all of this is not to belabor the issue of learning disabilities, but to encourage the Congress to seek regular interaction and coordination between NIE and other responsible agencies with the Federal system.

GIFTED AND TALENTED

As you know, Mr. Chairman, the Education Amendments of 1974 (P.L. 93-380), authorized a new Federal education component toward the education of gifted and talented children. That same authorization carries a special mandate (Section 404(f)) to the National Institute of Education to carry out a program of research and related activities relating to the education of gifted and talented children. Furthermore, the Commissioner of Education is authorized to transfer to the Institute "such sums as may be necessary" to engage in that research

activity. We believe, Mr. Chairman, that it would be timely to seek at this point a report from the Commissioner and the Director of NIE stipulating exactly how they intend to carry out this provision.

CONCLUSION

Mr. Chairman, you are the major author of the House version of education legislation (S. 6) which we consider to be as important in its implications for exceptional children as any Congressional measure in the history of the Republic. We have no doubt that this landmark legislation, now out of conference, will become law. When it does become law, Mr. Chairman, you and your colleagues in the two Chambers will have firmly established the education of exceptional children at the top of the ladder of permanent educational priorities within the Federal system. We can only conclude our remarks today by saying that we sincerely trust that the National Institute of Education will conform to the clear direction of the Congress by making the education of exceptional children a top priority within its organization as well.

Mr. Chairman, we again thank you for the opportunity given the Council to appear today on behalf of exceptional children. In closing, may we simply reiterate that we stand prepared to make the full resources of The Council for Exceptional Children available to this Committee as it fulfills its legislative charge with respect to the legislation before us today.

Mr. BRADEMAS. Thank you very much, Mr. Jones.

We will now turn to Mr. Van Hook.

Mr. VAN HOOK. Mr. Chairman and members of the subcommittee, we appreciate very much this opportunity to appear before the subcommittee and I shall honor that invitation by keeping my remarks quite brief.

I am Victor Van Hook, president of the American Vocational Association for this year and coordinator of cooperative programs in the State of Oklahoma. You have copies of the written testimony and so I shall not devote my remarks to that.

Vocational educators in general, I think, are quite supportive of the language that is incorporated in H.R. 5988 and the concerns that are addressed there are concerns we have had as vocational educators.

There is one, however, of H.R. 5988, about which we have some serious reservations. If the language that is proposed in 405(b)(2)(d), "preparation of youth and adults for entering and progressing in careers" could be construed as meaning that vocational education research and development in the Office of Education would be replaced by this language, vocational educators would ask that you remember the history of vocational education in this country.

I think more than any other element of education, vocational education is unique a creature of the Congress. From the inception of the Smith Hughes Act of 1971 through all of the recent legislation, it has been primarily through the foresight of the Congress that visibility toward education for employment has maintained a strong visibility.

If we take a look at the entire career education movement going on in this country, I think it will show that a great deal of the impetus that was given to this particular movement from the time of the original conceptualization and current implementation has been as a result of the limited funds made available through parts (C) and (D) of the Vocational Education Amendments of 1968.

I think this is only one example of the concrete results that have come about because of the programmatic orientation of vocational education.

Although the funding for the research and development efforts in vocational education has never been funded at the level suggested I think if you take a look at the activities that have come about as a result of the limited funding that has gone there, there has been quite a good return on the dollars invested in this particular area of activity.

There has been some question about the commitment of HEW to vocational education and I think it is the opinion of the American Vocational Association that the programmatic efforts in vocational education must be maintained and we respectfully request that funds appropriated by Congress for research and demonstration in vocational education should continue to be administered by the Bureau within the Office of Education responsible for the administering of the funds for all of vocational education.

We thank you for the opportunity to be here, and I will be happy to respond to any questions that might be before the subcommittee with reference to the written statement or these brief oral statements.

Thank you, Mr. Chairman.

[Prepared statement of Victor Van Hook follows:]

PREPARED STATEMENT OF VICTOR VAN HOOK, PRESIDENT, AMERICAN VOCATIONAL ASSOCIATION, WASHINGTON, D.C.

Mr. Chairman and Members of the Committee: The American Vocational Association sincerely appreciates the opportunity to provide testimony concerning the reauthorization of the National Institute of Education. I am Victor Van Hook, President of the American Vocational Association, and represent approximately 55,000 vocational educators involved in the teaching of youths and adults in all vocational disciplines throughout the nation. Our primary interest in NIE's future relates to our co-aligned priority dealing with education and work. Realizing the significant interrelationships between all areas of educational R & D and vocational education R & D priorities, our association is compelled to have a special interest in the operation and priority establishments of the National Institute of Education.

As a professional association, AVA has some serious concerns with the continued re-authorization of the National Institute of Education, both favorable and disfavorable. My remarks this morning deal primarily with a limited number of key concerns. First, I will deal with NIE's failure to date to comply with its charge to build a national R & D capacity and the effects of this failure on meeting the educational needs of the classroom teacher and the individual student. Secondly, I will address the issue and effects of the NIE's program purchase policy vs. institutional support of key R & D agencies on the educational products and services available to educators. Next, I feel that the lack of involvement of the vocational education field regarding R & D contractual and substantive decisions which have implications for vocational education, have directly and regressively affected the progress of our profession. Finally, I feel it a necessity that I suggest some possible means whereby the NIE could contribute more substantially to the national priorities relating to vocational education.

BUILDING A NATIONAL R. & D. CAPACITY

We, in the vocational education profession, are well aware of the fact that virtually all problems of a nation require strategies to solve them. Whereas, such problems are solved in our society by the local, state and federal government in day-to-day management, strategies must be conceptualized to positively effect problems of broad national significance. Since such problems must be solved in a manner consistent with the decision-maker's perceptions of national objectives and interests, a national capacity for performing this function is desperately needed in this country.

Since early in 1960, the U.S. Office of Education has realized the priority need of establishing a research and development capacity for the "biggest" business in the land—education. As you have heard in earlier testimony by other representatives of the education community, the early 1960's saw the establishment of

significant segments of this nation's educational R & D capacity: namely, national centers and laboratories. Struggling under the limitation of limited and sporadic funding from the Office of Education, fifteen of these institutions have survived and contributed significantly to the improvement of the educational process in classrooms throughout this nation. Centers and laboratories have assisted with this through the recruitment of highly specialized professional staffs and conductance of programmatic R & D which begins with inquiry and extends to implementation of educational methods and curriculum in the nation's classrooms.

In 1972, under Public Law 92-318 Congress created the National Institute of Education (NIE), an agency which was proposed to give centralized attention to educational R & D within HEW. The specific Congressional intent of the creation of NIE as it relates to building an R & D capacity for education is clearly stated in the following preamble of the enabling legislation:

The Congress hereby declares it to be the policy of the United States to provide to every person an equal opportunity to receive an education of high quality regardless of his race, color, religion, sex, national origin, or social class. Although the American educational system has pursued this objective, it has not yet attained that objective. Inequalities of opportunity to receive high quality education remain pronounced. To achieve quality will require far more dependable knowledge about the processes of learning and education that now exists or can be expected from present research and experimentation in this field. While the direction of the education system remains primarily the responsibility of the State and local governments, the Federal Government has a clear responsibility to provide leadership in the conduct and support of scientific inquiry into the educational process.

"(2) The Congress further declares it to be the policy of the United States to—

"(i) help to solve or to alleviate the problems of, and promote the reform and renewal of American education;

"(ii) advance the practice of education, as an art, science, and profession;

"(iii) strengthen the scientific and technological foundations of education; and

"(iv) *build an effective educational research and development system.*

"(b) (1) In order to carry out the policy set forth in subsection (a), there is established the National Institute of Education (hereinafter referred to as the 'Institute') which shall consist of a National Council on Educational Research (referred to in this section as the 'Council') and a Director of the Institute (hereinafter referred to as the 'Director').[1]

To date, NIE's management has seriously hampered the development of an R & D capacity for NIE. The design for such an R & D system is not in place after *three* years of operation. Results have been a disregard for much of the Federal Government's previous investment in R & D capacity for the nation. The American Vocational Association is highly concerned with this lack of attention on the part of NIE to a fundamental legislative charge and would urge the Congress to hold NIE accountable for establishing this critically needed system.

PROGRAM PURCHASE VS. INSTITUTIONAL SUPPORT OF EDUCATIONAL R & D AGENCIES

The American Vocational Association is fully cognizant that all research capability does not lie within centers and laboratories. There should be a balance of program purchase and institutional support of educational R & D agencies. Likewise, we are fully cognizant of the fact that NIE per se does not have the capability for establishing research priorties especially when it is void of program oriented personnel.

The National Institute of Education (NIE) began a subtle and devastating erosion of previously established R & D capacity in 1972 when it implemented its program purchase policy primarily as the basis for determining who was qualified to do NIE's work. This competitive mode was to provide NIE a means to establish a set of educational R & D priorities and then fund only those programs and projects inherited from the transfer from the U.S. Office of Education that were of quality and deemed responsive to NIE's priorities. The result was literally decapacitation of OE's ten-year investment in an educational R & D system. The R & D programs and projects were subjected to extensive review and those judged to be of high quality by NIE were purchased. This approach vs. OE's

[1] Education Amendments of 1972, Public Law 92-318, p. 99.

institutional support approach to funding educational R & D has had critical implications for vocational education.

The program purchase policy as operationalized, was exploitive and did not provide a means for institutions to maintain or renew themselves or mount initiatives or counterproposals. It had the insidious effect of centralizing all of the decision-making within NIE. This denied the Institute the best creative minds out in the field, in terms of initiating proposals or in collaborative activities prior to actual contract awards.

According to the recent Final Report[2] of Consultants to NIE regarding its R & D funding policies, they found the following problems to be associated with open competition based on an agency's request for proposal:

It is not always true that agency staff can write clear and useful specifications for what is wanted, particularly if the work stems from a planning process where the agenda was drawn up by national experts from outside the Institute.

The costs of bidding are eventually added to the government's cost in future procurements, so a high rate of bidding and the accompanying high rate of unsuccessful proposals is in the long run drawing funds away from performance of the work. Where there are only a few good performers for a given type of work, the rest of the competitors have little chance, and their costs of failure are a drain on energy and time that might have been avoided. Further, the cost to the government of reviewing a great many proposals is not always reflected in superiority of the final product as compared with the quality obtainable under more limited competition.

Extensive competition among a small number of organizations capable of large-scale work in education R & D may tend to promote disintegration and professional secrecy within the group—negative results to be avaoided if possible.

NIE's consultant panel readily points out shortcomings of NIE's procurement procedure as a device for bringing to the attention of the NIE all those who should be considered for research funds. In this regard, they have listed the following problems with NIE's present procurement practices:

Little or no advance information about specific competitions is available except through personal contacts, which effectively confines participation to those with well-developed private intelligence systems or those already so aggressively in the market as to scan the official Federal procurement publications. Specific competitions open and close on very tight schedules, leaving little time for informal contact to spread the word. The process of advertising contract procurements is especially cumbersome and ill-suited for reaching the academic community.

Nor does any general information at a decent level of specificity exist concerning the overall thrust and scope of each program, so that a person could review planned activity and inquire further how to participate.

No single document is available such as a monthly list of present competitions or RFPs available (though we recognize that fewer new competitions were held in the tight budget year of FY 75).

Mailing lists, we understand, have been a continuing source of difficulty. Apparently, the Institute does not have a ready way to identify people who have indicated interest in the past.

No general information exists about the mechanics of grant and contract application and award procedures, such as a general guide to "How to get funds from NIE". Even small basic research projects are announced and awarded through the formidable method of the RFP and the contract, without guidance as to the meaning of the various parts to be completed, the full process that will be followed in making decisions, rights of debriefing, and so forth. The perception is widespread in the field that doing business with NIE is extremely complicated, and it is probably right.[3]

AVA recommends that the Institute have a full repertoire of procurement policies that are, in fact, permitted by Federal Government, ranging from institutional support to competitive procurement.

R. & D. PROGRAMS PURCHASED NOT INHERITED FROM THE U.S. OFFICE OF EDUCATION

In recent years, it has been observed that NIE has claimed to have a tremendous burden on their budget, due to the inheritance of R. & D. programs from the

[2] Final Report of Consultants to the Director and Consultants to the Director and the National Council on Educational Research. R. & D. Funding Policies of the National Institute of Education: Review and Recommendations. NIE, HEW, August 1975, Washington, D.C., pp. 56–57.

[3] Ibid., pp. 56, 57.

U.S. Office of Education. Claims of this nature are definitely invalid. Mr. Lowell A. Burkett, Executive Director of the American Vocational Association, served as a member of one of the review panels (Panel G) charged with the task of assessing the quality of the programs being considered for transfer to the NIE. Mr. Burkett observed (1) that there was a rather flagrant attempt to "kill off" good programs, (2) that only "quality" programs made the transfer, (3) that the Institute has reaped a great deal of benefit from these transfer programs, and (4) that transfer programs were only a portion of their total budget.

It is interesting to note that in a hearing before your committee in February, 1973, the NIE director reported on the transfer of laboratory and center R. & D. programs from the U.S. Office of Education. The essence of this report was a decision to:

Provide contracts for one year or less for 26 programs.
Provide three year contracts for 22 programs.
Provide two year contracts for four programs.
Phase out 11 programs.
Not to fund five proposed new programs.

NIE gave a three year commitment to only 32 percent of the laboratory and center programs transferred from USOE.

NIE'S LACK OF INVOLVEMENT OF THE FIELD

The National Institute of Education has a poor record in regard to working with the profession, especially the vocational educators. No noticeable attempts have been made to establish effective working relationships, advisory groups, etc. Two specific instances of this are worthy of mention and clearly illustrate the problem. In 1973, a decision was made by NIE to consolidate the ERIC Clearinghouses on Vocational Technical Education and on Adult Education into a single clearinghouse. It was also decided to add the third dimension of career education and name the consolidated effort the ERIC Clearinghouse on Career Education. This entire consolidation process took place without the full counsel of vocational education.

To further highlight NIE's lack of involvement of constituents in the field, the Final Report of Consultants to NIE dated August, 1975 cites numerous examples:

NIE has to deal with teachers and their organizations, anxious to be consulted at every step and alert to watch out for radical experiments that might disrupt important parts of their professional world. It must be aware of higher education groups who monitor the balance between support of university scholarship and contracts to non-profits and who wonder why little attention is paid to their own problems of postsecondary schooling. It must at the same time contend with organized non-profits who, in turn, remind NIE of the poor image that practitioners have of university research and of their own responsiveness to government demands for new kinds of evaluation and product development that universities never got into. Chief state school officers—at least their leadership and Washington officials—lost faith in the NIE early on, as a growing role (and growing dollars) promised by the USOE in product dissemination seemed nipped in the bud when the work of the National Center for Educational Communication was transferred to NIE and the states were not immediately brought in as they had been at USOE. The chiefs' Council set up a special committee to keep an eye on NIE, and played the continuing role of skeptic and critic of NIE's budget in the annual deliberations of the Full Funding Committee (setting the lobbying posture of all major educational organizations on appropriations) based on their view of NIE's lack of responsiveness to states.[4]

As to process, we heard repeatedly of anger at unmet expectations concerning the openness of planning. Scholars and practitioners, in associations and institutions, told us of promises made and broken, "involvement" that was neither serious nor sustained. A teacher group especially forcefully reminded us that work. Realizing the significant interrelationships between all areas of educa- occasional meetings in Washington of high-level staff are no substitute for serious participation of practicing teachers in the work of NIE grantees and contractors from the outset. With all the talk about a new emphasis on outside views at NIE, it was disturbing to hear that any group needed, as these teachers did, to "break down the door" to get to the table at NIE planning conferences of significance to them.

[4] Ibid., p. 34.

We heard that the problem areas were chosen in part because they covered a significant fraction of the present work NIE has under way. But if this is true, it is further disturbing—again on the subject of the process of planning—to hear as we did repeatedly at laboratories and centers, as well as at other R & D institutions, that top-flight staff at such places with extensive background in relevant work, feel distant and uninvolved in the planning and designing of future work in their areas of competence.[5]

Policy studies have been given a disproportionate amount of emphasis by the NIE and the results have been less than conclusive. This, again, has been largely due to the fact of lack of involvement of those who should be acting upon the policy studies in the field. A key example of the problem is the study by Wellford W. Wilms, University of California which studies *The Effectiveness of Public and Proprietary Occupational Training*. As a result of the lack of involvement of the field, the profession is highly speculative concerning the research design and the validity of the results derived from NIE's investment. AVA urges that NIE improve their involvement of constituencies through improved working relationships with members of the profession and developing advisory groups around various educational substantive areas.

IMPROVEMENT OF COORDINATION OF EDUCATION R & D WITH OTHER AGENCIES

It is essential that NIE continue to improve coordination of their research and development efforts with the Office of Education and other governmental agencies. This would enable them to avoid duplication and develop mutual understandings and possible new interagency working relationships. Such coordination could possibly assist NIE in its efforts to get their R & D products accepted and used by a wider range of educational clientele groups.

It is also a concern that vocational education research and development remain as an entity in the U.S. Office of Education. The history of combining vocational education research and development with other research efforts in the Bureau of Research during the earlier part of the decade, was a devastating failure. AVA as the representative of the total vocational education profession, is convinced that vocational education research and development must be a part of any federal legislation for vocational education and it must be under the administrative aegis of the bureau responsible for vocational education.

NATIONAL COUNCIL FOR EDUCATIONAL RESEARCH

The role of the NIE Council, NCER, definitely needs to be strengthened. This is especially true of their policy formulation function. According to the recent Final Report [6] of Consultants to NIE:

Since its swearing-in during July of 1973, the Council has met sixteen times (though not always with a quorum), and has come together in ad hoc sessions for visits or discussions with other groups many other times. This is a rapid education process, and one could wish that the terms of office were somewhat longer so that the experience gained by Council members would be available longer. And yet, despite this admirable record of meeting and conferring, the Council remains a rather invisible force, certainly not known among NIE staff as a source of policy that affects their lives; nor in the wider R & D or education worlds is it readily acknowledged, we sense, as a shaper of the young Institute.

It is imperative that the Council have a small staff which is responsible to it, to assure that it has a broadened perspective and inputs beyond the inputs secured through the NIE staff.

This is clearly substantiated by the Council's own concerns as noted in the recent Final Report of Consultants to NIE:[7]

The Council, we understand, feels that it cannot, and indeed should not, act without close relationships with the Director, that their proper role is to press for staff analysis of options, honest reports on outside views, and for recommendations from the Director.

COMPOSITION OF THE NIE STAFF

Steps should be taken to ensure that the composition of the NIE staff becomes proportionately representative of the specific fields of education they serve. This composition should include both practitioners and beneficiaries of educational

[5] Ibid., p. 51, para. 1 and 2.
[6] Ibid., p. 39–40.
[7] Ibid., p. 40.

R & D and should reflect a balance of personnel competencies which are required to manage large scale research and development. The need for improved professional expertise is substantiated by the recent Final Report of Consultants to NIE:[8]

As a rule, the staff is younger rather than older; drawn from universities or government rather than public education, critical of much current educational practice rather than satisfied; anxious to get on with their own work and plans rather than perfect the plans of others (either plans made in the past, as in the case of inheritances, or plans made now by outsiders); and divided about the proper mode of attack on education matters (through basic studies of underlying processes, through field-based experiments and development, or through the spread of current best practice and findings).

A former key NIE planner has stressed to us the combined effects of youth, desire to make a mark, and inexperience at planning and managing.

DISSEMINATION OF R & D PRODUCTS

The need exists to increase the NIE agencies' investments in developmental programs and in dissemination. The Consultants to NIE have expressed the criticality of this increased attention to NIE's dissemination efforts in the conclusion of their Final Report:[9]

We understand the political pressure for "dissemination" of the results of R & D, but we conclude that NIE has done little to attack the problem as a substantive matter or cluster of issues and competing conceptualizations. We do not think that work in the field can be halted until theory catches up, but we do believe an experimental attitude would be helpful even as action goes forward, and that diverse groups within NIE could be brought together more directly to consider paradigms for change and the various roles of "dissemination" within them. Research of knowledge-utilization could be more extensively funded as an essential basis for policy in this area.

There is a great deal of R & D that has been completed that has not yet been disseminated. There are no explicit plans and practices of the Institute for performing this critical task other than the ERIC system which has been underfunded for a number of years and is but one part of a broad dissemination strategy.

CONCLUSION

In conclusion, the American Vocational Association supports investments in long-range research and development efforts. It is our observation that the things that really make a difference are programmatic efforts; those which represent well-planned conceptualized research and development programs and are multi-year funded. These R & D efforts have been and should continue to be of a nature that requires planning, organization and management that transcends the R & D continuum from conceptualization to implementation.

We firmly believe that there should be an inquiry system within an operating system that addresses the research needs as identified within the operating system.

Therefore, we believe that funds appropriated by Congress for research and demonstrated in vocational education should be administered by the bureau within the U.S. Office of Education responsible for administering the funds for all of vocational education.

Mr. BRADEMAS. Thank you very much.

Mr. Gomez.

Mr. GOMEZ. Mr. Chairman and members of the subcommittee, I am Roger W. Gomez, legislative assistant of the National Education Service Centers (NESC), a nonprofit, nonpartisan educational organization sponsored by LULAC, the League of United Latin American Citizens. Accompanying me is Helena Grady, Director of Research for NESC.

On behalf of LULAC, the Education Centers and Hispanic American citizens, I would like to take this opportunity to thank you for the occasion to appear before you today to convey our concerns on the reauthorization of NIE, H.R. 5988.

[8] Ibid., pp. 38–39.
[9] Ibid., p. 70.

LNESC is engaged in the field of higher education with primary emphasis on Hispanics.

As of August 1975, our 11 field offices located in 9 States had provided the following services: 14,000 plus students have been accepted into colleges and universities; 9,200 students have enrolled in post-secondary schools of their choice; 31,400 students have received some form of counseling/assistance.

Over $10 million has been generated as financial aid.

The following statistics reflect the inequities faced by Hispanics in education:

Less than 5 percent of Hispanic children eligible for bilingual education are being reached in the Nation's elementary schools.

Median school years completed by Americans of Spanish heritage are only 9.6 years as compared to 12.1 years for Americans as a whole. 36 percent of the Hispanic population over 24, completed 4 years of high school as compared to 52.3 percent of the total U.S. population.

Only 14 percent of the Hispanic adults over 25 had completed college, including 6 percent who had completed 4 or more years. For the total population it was 21 percent and 11 percent, respectively.

Hispanic participation in education declines steadily at the higher levels of education and it drops drastically at the college level. According to the 1970 census, Hispanics comprised approximately 6 percent of the total population. At the same time, however, only 1.9 percent of America's college students were of Hispanic heritage. Hispanic graduate students accounted for only 1 percent of the total graduate school enrollment. Of the bachelor's degrees earned in 1970, Hispanics accounted for only 12 percent of the total. For those earning a doctorate in 1972–73, it was a disparate 0.8 percent.

These figures clearly indicated that Hispanics have been denied equal education opportunities. The Federal Government has taken on the responsibility of providing the leadership in the educational process and to this end, NIE was created. The legislation authorizing its creation in 1972 explicitly stated that it was the intention of the U.S. Congress to "provide to every person an equal opportunity to receive an education of high equality regardless of his race, color, religion, sex, national origin, or social class."

NIE was mandated to "help solve or alleviate the problems of, and promote the renewal of American education to strengthen the scientific and technological foundations of education through an effective educational research and development system." Thus, NIE was instituted to conduct educational research activities to insure opportunities for all segments of the American population.

The field of bilingual education has become a major focal point for the improvement of educational achievement of that portion of the American population which is of a different cultural and/or linguistic lineage of which Hispanics comprise the largest group.

NIE Multicultural/Bilingual Division has been delegated the responsibility to deal with the educational problems of students of limited English speaking ability. This Division is extremely important in dealing with problems of elementary schoolchildren to insure that these children gain proficiency in English and achieve academic improvement. Research to measure the effectiveness of such bilingual education programs is a long process before results are able to be

calculated. Little research has been conducted on the overall effectiveness of bilingual education in its present application, thus negating the possibility for improvement, continued evaluation, and renewed application in order to strengthen these programs. Therefore, we feel that this research on Hispanics must be undertaken in order to upgrade our data on the educational achievements of these students and to demonstrate the value of such programs as these students continue on to the level of higher education.

Hispanic Americans are eager to participate in educational opportunities including those in higher education. Primarily through such an institution as NIE can we delve into the causes and consequences of the low Hispanic educational achievement. Only through research and development can we understand and eventually implement strategies to resolve these problems at all levels of educational achievement.

Of all the programs dealing with postsecondary education sponsored by NIE since its inception, only two have specifically pertained to Hispanics, minority workshops, and graduate fellowships. Both programs have set aside 50 percent of their funds for Hispanic students to gain access to training in leading research centers and to provide Hispanic students with postgraduate training in careers in educational research and development. Such opportunities in postsecondary education are crucial in the overall development of capable Hispanic leadership. Programs of this nature are significant in order for us to overcome our historically low representation in this Nation's colleges and universities, but programs such as these are merely a beginning. Undoubtedly, a postsecondary education will continue to be a key in the qualification and certification of individuals at all levels of the various professions within education, business, and industry in both the public and private sectors of the economy.

Presently within the total NIE staff of approximately 320 individuals, only 7 are of Hispanic origin. If NIE is going to be responsive to the pressing educational problems of Hispanics, NIE should join in an effort to employ more Hispanics. Also, Hispanics should be included in the overall planning of program activities as well as setting the priorities for research. It is indispensable that our community and its educational problems be understood by NIE for it cannot afford to allow our needs to pass unrecognized. With a more positive relationship between Hispanics and NIE, we will witness a more meaningful utilization of our mutual resources, a greater possibility for quality education through research, and the development of long- and short-range plans to complement and benefit one another. In the past, there has been Hispanic representation on the Council and we feel that this should continue in order to provide a Hispanic perspective in the overall activities at NIE and also to deal with those educational problems pertaining to the Nation's Hispanic community.

To this end, we firmly recommend that the NIE authorization be increased from $80 million to $110 million for the upcoming fiscal year with a significant increase in current funding levels of that amount going into research on bilingual education, and other areas related to Hispanics. We feel this overall increase in authorization levels is necessary so that NIE may be able to continue and to expand its mission as mandated by the U.S. Congress to provide a vigorous leadership in conducting overall research and development efforts in the field of education.

[Prepared statement of Richard D. Salvatierra and Roger W Gomez follows:]

PREPARED STATEMENT OF RICHARD D. SALVATIERRA, ASSISTANT NATIONAL DIRECTOR, LULAC NATIONAL EDUCATION SERVICE CENTERS, AND ROGER W. GOMEZ, LEGISLATIVE ASSISTANT

Mr. Chairman and members of the Subcommittee, I am Richard D. Salvatierra, Assistant National Director of the National Education Service Centers (NESC), a non-profit, non partisan educational organization sponsored by LULAC, the League of United Latin American Citizens. Accompanying me is Mr. Roger Gomez, Legislative Assistant for LNESC.

On behalf of LULAC, the Education Centers and Hispanic American citizens, I would like to take this opportunity to thank you for the occasion to appear before you today to convey our concerns on the reauthorization of NIE (H.R. 5988).

First of all, I would like to present you with a short brief on our organization, its purposes and objectives. LNESC is engaged in the field of higher education with primary emphasis on Hispanics. Our principal objectives are to:

(1) Increase the number of persons attending America's colleges and universities with special emphasis on Hispanic American students.

(2) Increase the retention rate of Hispanic American students in colleges and universities.

(3) Increase the awareness of the educational problems faced by the Hispanic community to institutions of higher education, foundations, corporations, and federal agencies with intent to bring about an increased concentration of resources on the problem.

As of August, 1975, our eleven (11) field offices located in nine states had provided the following services:

14,000+ students have been accepted into colleges and universities.

9,200 students have enrolled in post secondary schools of their choice.

31,400 students have received some form of counseling/assistance.

Over $10,000,000 has been generated as financial aid.

Therefore, LNESC has had a significant national impact in upgrading the educational skills of a segment of our population which has traditionally been denied the equal opportunity of higher education. As the nation's oldest and fastest growing minority group, the Spanish surnamed people are only too keenly aware that their dismal educational record will never be overcome unless larger numbers of Hispanic leaders, decision-makers, businessmen, professionals, and educators are produced by the institutions of higher education in this country.

The following statistics reflect the inequities faced by Hispanics in education:

Less than 5% of Hispanic children eligible for bilingual education are being reached in the nation's elementary schools.

Median school years completed by Americans of Spanish heritage are only 9.6 years as compared to 12.1 years for Americans as a whole.

36% of the Hispanic population over 24 completed 4 years of high school as compared to 52.3% of the total U.S. population.

Only 14% of the Hispanic adults over 25 had completed college including 6% who had completed 4 or more years. For the total population it was 21% and 11% respectively.

These figures clearly indicate that Hispanics have been denied equal education opportunities.

The federal government has taken on the responsibility of providing the leadership in the educational process and to this end, NIE was created. The legislation authorizing its creation in 1972 explicitly stated that it was the intention of the United States Congress to "provide to every person an equal opportunity to receive an education of high quality regardless of his race, color, religion, sex, national origin, or social class".

Furthermore, it was [illegible]ined that greater research efforts in the field of education are needed in or[illegible] to gain and achieve the goal of quality education. NIE was mandated to "h[illegible]p solve or alleviate the problems of, and promote the renewal of American education to strengthen the scientific and technological foundations of education through an effective educational research and development system". Thus, NIE was instituted to conduct educational research activities to insure educational opportunities for all segments of the American population. In-depth research studies on Hispanics have been sponsored by the Institute but not to the extent required to investigate the underlying causes of their low educational

achievements. Results of more concentrated studies are of pivotal importance, since it is through such research that educators can propose and implement solutions to remedy the educational inequities faced by Hispanics. The need for this research is urgent if Hispanic Americans are to overcome the educational barriers that they confront because of their unique cultural and linguistic background.

In fiscal year 1973, grant awards for Hispanic programs sponsored by NIE averaged $178,000 while the average grant award for similar black programs was $350,000 or nearly twice that of Hispanic programs. These disproportionate allocations are true of each fiscal year with the exception of fiscal year 1975 when $253,000 was awarded for black programs and $242,000 for Hispanic programs. We in no way wish to suggest that funding for black programs be reduced, however, we simply want to point out the fact that Hispanics are not receiving a fair share.

Over the past decade and a half, the federal government has spent over a billion dollars on research and development on the nation's educational problems and billions more on aid to schools and school districts, yet little has been done specifically to assist Hispanics in upgrading educational skills as is evidenced by their low educational achievement. NIE sponsored research activities are meant to be problem solving, emphasizing applied research to educational problems through research and development. In this respect NIE has been granted the authority to partake in new and innovative ideas in different areas of education by enlarging and strengthening the foundation of education. The results are then studied by educational practitioners and integrated into the development and implementation of educational programs. Thus, the federal government created NIE to meet the educational research needs of the nation, an extremely worthwhile plan with tremendous potential. Yet, it is necessary that NIE treat the needs as presented by the entire population.

The field of bilingual education has become a major focal point for the improvement of educational achievement of that portion of the American population which is of a different cultural and/or linguistic lineage of which Hispanics comprise the largest group. NIE's Multicultural Bilingual Division has been delegated the responsibility to deal with the educational problems of students of limited English speaking ability. This division is extremely important in dealing with problems of elementary school children to insure that these children gain proficiency in English and achieve academic improvement. Research to measure the effectiveness of such bilingual education programs is a long process before results are able to be calculated. Little research has been conducted on the overall effectiveness of bilingual education in its present application, thus negating the possibility for improvement, continued evaluation, and renewed application in order to strengthen these programs. Therefore, we feel that this research on Hispanics must be undertaken in order to upgrade our data on the educational achievements of these students and to demonstrate the value of such programs as these students continue on to the level of higher education.

Hispanics in the past have benefitted from supportive programs in the areas of reading and math at different educational levels due to their traditionally low achievement in these areas. Yet, the problems centered around the actual causes of the low scores themselves have not been dealt with. Instead, the problems remain undetermined since research was not conducted on the primary causes of low scores and only the secondary consequences manifested on grade point averages are resolved.

Hispanic Americans are eager to participate in educational opportunities including those in higher education. Primarily through such an institution as NIE can we delve into the causes and consequences of the low Hispanic educational achievement. Only through research and development can we understand and eventually implement strategies to resolve these problems at all levels of educational achievement.

Hispanic participation in education declines steadily at the higher levels of education and it drops drastically at the college level. According to the 1970 census, Hispanics comprised approximately 6% of the total population. At the same time, however, only 1.9% of America's college students were of Hispanic heritage. Hispanic graduate students accounted for only 1% of the total graduate school enrollment. Of the bachelor's degrees earned in 1970, Hispanics accounted for only 1.2% of the total. For those earning a doctorate in 1972–1973, it was a disparate .8%.

Of all the programs dealing with post-secondary education sponsored by NIE since its inception, only two (2) have specifically pertained to Hispanics, Minority

Workshops and Graduate Fellowships. Both programs have set aside 50% of their funds for Hispanic students to gain access to training in leading research centers and to provide Hispanic students with post-graduate training in careers in educational research and development. Such opportunities in post-secondary education are crucial in the overall development of capable Hispanic leadership. Programs of this nature are significant in order for us to overcome our historically low representation in this nation's colleges and universities, but programs such as these are merely a beginning. Undoubtedly, a post-secondary education will continue to be a key in the qualification and certification of individuals at all levels of the various professions within education, business, and industry in both the public and private sectors of the economy. Therefore, Hispanics must be given an equal opportunity to education.

The problem of low Hispanic representation in institutions of higher education is particularly acute in the Southwest where the majority of the nation's Hispanics reside, especially in California and Texas where we comprise over 16% of the population in each state. Enrollment figures for California State Universities and Colleges indicate that we account for 4.5% of the undergraduate and 3.0% of the graduate students, while for the University of California, the figures drop to 3.3% and 2.8% respectively. Similarly, at the University of Texas in Austin, Hispanics account for 4.1% of the total student enrollment.

Because of the lack of research data available, it is difficult to remedy the serious educational problems confronting Hispanics. This void reflects the need for educational research efforts on Hispanics in the various organizational components of NIE in addition to the current research efforts in the Multicultural/Bilingual Division. NIE must have qualified staff members who have the expertise regarding Hispanics in education, if the Institute is to effectively deal with problems. Presently within the total NIE staff of approximately 320 individuals, only seven (7) are of Hispanic origin. If NIE is going to respond to the Hispanics, the Institute should join in an effort to employ more Hispanics. The institution of more fellowships which is a logical outgrowth from the need for new staff would also include additional opportunities for Hispanics. Furthermore, such programs would have a beneficial impact on having Hispanics perform the actual research concerning Hispanics themselves. Also, Hispanics should be included in the overall planning of program activities as well as setting the priorities for research.

It is indispensable that our community and its educational problems be understood by NIE for it cannot afford to allow our needs to pass unrecognized. With a more positive relationship between Hispanics and NIE, we will witness a more meaningful utilization of our mutual resources, a greater possibility for quality education through research, and the development of long and short range plans to complement and benefit one another.

The administration has been slow in appointing individuals to fill the vacant positions of the National Council on Educational Research, the policy making body of NIE. Consequently, NIE's efforts to carry out its functions effectively have been hampered. LNESC supports the language in the legislation which insures that members of the board who are not re-appointed remain on until their replacements have been named and confirmed. In the past, there has been Hispanic representation on the Council and we feel that this should continue in order to provide a Hispanic perspective in the overall activities at NIE and also to deal with those educational problems pertaining to the nation's Hispanic community.

The LULAC National Education Service Centers firmly support the concept of NIE to assist this country in providing equal educational opportunity by taking on a vigorous leadership with regard to conducting the overall research and development efforts in the field of education. To this end, we firmly recommend that the NIE authorizations be increased to $110 million for the upcoming fiscal year with a significant increase in the current funding levels of that amount going into research on bilingual education, and other areas related to Hispanics. We feel that this increase in authorization levels is necessary so that NIE may be able to continue and to expand its mission as mandated by the United States Congress.

Mr. BRADEMAS. Thank you very much.

I would make just one general observation that, as I was reflecting on your various statements through each of which you will observe there runs a common theme, which is to say you are not doing enough for me, I then turned my mind back to some of the debates we have

had on this legislation in which we entered into conversations with persons who do not represent women or Hispanics or vocational educators or the handicapped, but represent various levels of education such as chief State school officers or school boards because from them we had also complaints, you are not doing enough for us and you should not really be giving so much money to the local school systems but you should be giving money to the State education institutions and that is the only way to solve these problems; you are giving too much money to the university, and not enough to us out in the countryside where we really get the job done.

Now, I do not make this observation to indicate I think there is not some validity to the kinds of criticisms that you have each voiced, but only to make two points.

One, that I think there is an analogy between, as I see it, the role of the place of the NIE at this stage of its history, and this is 1975, and the law was written in 1972, so one reaction I have as one who has fought this fight to have an NIE is that we want to be careful not to strangle the baby in its crib by insisting that it run the 100-yard dash in 6½ seconds.

The point I am making is the NIE has been struggling simply to survive in its short history, let alone to meet the, I think, quite laudable objections that each of you has asserted that it should meet in respect of your particular area of interest.

The second point I would make is that I sense a kind of analogy here between the National Institute of Education and the National Arts and Humanities Foundation, which is legislation over which this subcommittee also has jurisdiction. This is the 10th year of the National Arts and Humanities Endowments. Those programs have—I think, by and large, most people would agree—have been quite successful and have now won broad bipartisan support in Congress, both Democrats and Republicans and from Presidents, both Democrat and Republican.

I think that one of the reasons, of the many, that the Arts and Humanities programs have been able to move ahead and show some significant advance is that in its early years in particular we resisted efforts to earmark funds, for had that been done, I think the program would have probably died of mourning. Indeed, I think that the time has come when the Arts and Humanities Endowments are getting enough Federal funds that some of the kinds of criticisms that you have made with respect to your particular areas of responsibility and interest might be appropriately—I don't say this with regard to any specific criticism you may have voiced of the NIE—raised with respect to the Arts and Humanities Endowments.

So I only make these observations to reiterate not to indicate a lack of sympathy with some of the points you have made but to say that sitting at least where I sit on this subcommittee, as one who is a strong supporter of educational research, I have to confess to you a degree of apprehension lest those with very legitimate points of view to press be so adamant and so insistent in their point of view being upheld, particularly if we write it into the law, that there won't be any National Institute of Education and we won't make any headway at all.

Now I think we floundered somewhat in the last 2 or 3 years in part because of some of the kinds of issues to which I earlier alluded. Hopefully, we are going to be able to move ahead.

Now I just cite one instance before I yield to my colleagues where I think some constructive advance is being made and I mention it because it touches on what several of you have already discussed. That is, the report of September 18, 1975, only last month, of the National Council on Educational Research which, as you know, is not an advisory council, it is a policymaking body. I quote from that document as follows:

> To this end, the Council mandates, the following studies and reports: No. 6, women and minorities in education R. & D. It shall be the policy of the National Institute of Education to increase the participation of minority persons and women in the research and development effort of the nation.

And so forth.

And mandates that this report, a national report rather, be prepared by February 1, 1976.

So I think that we are getting at least some progress in response to the concerns expressed by Ms. Brown and by Mr. Jones, so I really didn't have a question to put to you, but I only wanted to make that observation as I hope to go along in this effort.

I recognize Mrs. Chisholm.

Ms. CHISHOLM. Thank you, Mr. Chairman.

With all due respect to my chairman, I recognize exactly what he is saying. But he is very interested that in this particular panel that now sits before us, a panel that is trying to make NIE become cognizant of the necessary input from women, from Hispanic peoples, from the exceptional children, that it is not even a question of money, that it is a question of policy.

It is a question of establishing priorities within priorities and I think that is a very, very important thing for us to recognize. It is important for us to recognize, of course, because we are a multifaceted Nation, that just about every group is going to want something, yes the Italian people and the Polish people will come before the committee for something and every other group and this is what America is all about, but I think in the scheme of things in the historical traditional way of doing things educationally, since we are dealing with education, that there are very specific unique concerns that need to be brought to the attention of the research and development facilities within the good old United States.

Therefore, having said that much, I would like to ask Ms. Brown a question. That is, now that the laboratories and the centers and those who have contracted with NIE and they are just required actually to do little more than sign a piece of paper indicating that they are equal opportunity employers and I know about that practice going on in our Nation today, just signing the paper saying you are an equal opportunity employer. What would you suggest that we should do to insure that the laborabories and the centers and the potential contractors have an aggressive affirmation action program?

Ms. BROWN. I am reluctant to suggest procedures that require more paperwork but I am going to and I don't want to suggest goals at this point though I am very much in favor of them.

I do want to suggest procedures that require people who are involved in education and education research to examine what they themselves are doing. I want them to examine the assumptions on which their own priorities are based, the assumptions on which their programs are

developed. I want them to look very carefully at the materials that they use and I want them to look at their staffing patterns and I want to examine all of those aspects of their operation for possible sex bias.

I think that process of self-examination can be an educational one in the best sense of the word and can lead to the goals that we seek in terms of achieving educational equality.

Now, I think that can be done by simply requiring annually, whatever reporting system there is, an impact statement that says we have made this kind of examination, and these are our assumptions and we have looked at our materials and they are OK, or we have thrown out some but they would have to report and it becomes a matter of public record.

I think that is terribly important, that is to go through that process itself.

There is one other suggestion that occurred to me while I was listening to the gentleman from the laboratories and centers this morning. At our annual meeting this past weekend, we had a very exciting day-long workshop on relating research to action. Participating in that, besides our 85 affiliate organizations, most of whom are activists in one way or another, were representatives from 70 women's research centers around the country, and most of these are at universities like the Women's Center at Berkeley, or our own Federation center at Wellesley College, but some of them are independent like the Women's Study Group for Policy Studies here in Washington.

If we put some of those research centers at work helping the NIE evaluate its programs and the impact on women of the work of the centers and the laboratories, that might be a very economical and very productive use of some of the funds.

Mr. BRADEMAS. Would the gentlewoman yield.

Ms. CHISHOLM. Certainly.

Mr. BRADEMAS. I wonder, Ms. Brown, because you deal in the field of science, what does the National Science Foundation do in this respect? Is there an analogy? I raised the question because we are talking about peanuts here. There is some serious money over there.

Ms. BROWN. Well, the women and minorities and handicapped don't get very much of the serious money over there either, and I am totally in agreement with your caution, Mr. Chairperson, about not wanting to strangle NIE in its formative years, and I would hasten to point out that I don't think the National Institute of Education is that much worse than most Federal agencies in this regard.

Mr. BRADEMAS. All I am suggesting is, if you forgive it as perhaps "sexist," but I think a more accurate analogy is, "Why don't you take on the big guys?"

Ms. BROWN. I have taken on the "big guys." I certainly have. And I hope they are beginning to respond, but clearly one of the reasons that the National Science Foundation is this year beginning to respond, and the reason that the National Science Board has established from its own membership a committee on women and minorities headed by Dr. Jewell Plummer Cobb, a black woman biologist, and dean of Connecticut College, they are moving in that direction, and I think clearly one of the reasons they are moving is that they have been pressured by one of the Senate offices following some very tough

questioning at the last authorization. They are also more able to move because they have an extra $1 million appropriation this year that was specifically tacked on to help the foundation address the problems of recruiting more women to the sciences.

Ms. CHISHOLM. I would like to ask one other question of you, Ms. Brown.

Yesterday, one of the witnesses commented that there was going to be a need for increased emphasis and involvement with adult education, particularly like so many of the failures of the 1970's are the failures of the schools of the 1960's.

Now, would you comment on that statement with regard to your special constituencies, women, minorities, and in the case of Mr. Van Hook, the vocational, and the Latin Americans, the Spanish, in view of this statement.

Now, this statement has tremendous implications in terms of research and development that is going to go into the future if indeed these populations, these segments in America are going to be productive citizens, and if the adults of the 1960's have to become failures with the results of the education system, what is it we have to look forward to in terms of this research and development?

Ms. BROWN. I am worried about that myself. I know there is a tendency among all of us that there were something called the good old days, and: "Education was better in the good old days than it is now."

One measure, I don't believe that. But I am concerned I think there are evidences around that the Nation's level of ability to deal with things like basic computational skills has deteriorated, and I think that the Educational Testing Services's analysis of grades on the College Entrance Board and the results of the national assessment of education indicate that the deterioration is there. I am especially concerned about the lowering of the scores this time in math and sciences. That has a special import for women and for minorities, too, because on every one of those tests, those measures of national competence that we are all worried about, the women and the minorities score less well than the white male portion of the population. So when we do research into why that is so, it is absolutely essential that we look at the differentials in those scores as well.

I can give you an example of what I mean in terms of NIE. Last month they had a conference on mathematic skills. It was a conference that was meant to go beyond the teaching of computational skills and enlarge the area of how one teaches the more advanced mathematics; that is, the logic, reasoning, and so on. They commissioned 30 papers at that conference, and not a single one of them dealt with the special problems of women in mathematics although there are at least four research centers around the country that I know of that are wrestling with just those problems now.

It is in this way, through, for instance, the basic skills section of the NIE, that the problems of minorities and women must be addressed, there, as well as on the Women's Research Staff.

Ms. CHISHOLM. Mr. Gomez.

Mr. GOMEZ. In the area of adult education, our high school dropout rate is very high in the Hispanic community nationwide. Therefore, we

have less numbers going into college, sort of like a system that perpetuates itself. A thing a great majority of Hispanics that have dropped out have learned is the necessity for a further educational opportunity.

A lot of them, you know, would like to take advantage of further educational opportunities, but since there are so little or there has been very little done on, say, reeducating them, not necessarily reeducating them but providing educational opportunities for those Spanish that have dropped out, and plus they have another step against them, the linguistic experience that they have, it compounds the whole problem that they are not then able to function in the English language.

I think an emphasis has to be made on this, that type of bilingual, bicultural education to reach this aspect of the population.

Another thing I would like to mention is that of bilingual education, which is also very important, which I would like to get into. So far there has been over—I know this year there has been over $5 million appropriated for bilingual education. NIE has conducted research on the field of bilingual education, but it takes a long time, and it is needed so we can know how to improve the program or analyze them for greater availability or for greater flexibility in serving the target population.

The sum of $85 million is a lot of money, and I have spoken to a number of people who have been involved in bilingual edcuation and the general consensus is, well, we are trying these programs out but we don't know how effective they are being and we don't know what changes are needed and we don't have proper research and documentation to lead us into the areas in which we can further benefit the program, further benefit the programs, and I think this is also an important point.

I must comment then it has made a start and we hope to see that continue.

Ms. CHISHOLM. Mr. Van Hook.

Mr. VAN HOOK. I appreciate the opportunity to speak to this because I do have some rather serious concerns along this line. I think some of the more expensive adult education programs we have had operating recently have operated through other agencies rather than through education, and I speak specifically to some of the elements in the Department of Labor where we have had curative legislation here to try to remedy these defects that are apparent in the education system.

I would suggest a rather intense effort on the part of the education community in the direction of identifying how the education community might more directly address these problems at an earlier time in the individual's development and this would reduce the need for such curative legislation that we have had through the Department of Labor.

Ms. CHISHOLM. Mr. Jones.

Mr. JONES. Our position would basically be that matters such as our prior example of career counseling should be attended to. I see NIE making comprehensive studies with the handicapped being an important target area. I serve on the Vice President's committee at the university for handicapped students. Mr. Brademas, I am sure, knows that probably the wrost place to counsel a student in a wheel

chair to attend is Indiana University. Perhaps the best thing you could do is take a bulldozer and flatten it out and make it look like Champaign, Ill. Of course I jest, Mr. Brademas, it is beautiful there, really. But the point remains, that I have dealt with many secondary school counselors who don't take this kind of thing into consideration when counseling a handicapped individual or a gifted individual or any other individual relative to the on-campus environment, not to mention realistic-counseling with respect to the projected job market and other crucial questions for the postsecondary candidate.

So that would be one critical area for NIE. There are numerous others. For instance, the issue of learning disabled children. Some 120 people are at the White House now discussing that area.

Let me offer yet another prospect for NIE: The education of the gifted and how do gifted kids learn? Many of them don't learn very well because the accommodations are not made. These are the areas that I see NIE getting into that would certainly benefit the populations that I represent, but not specifically saying I want NIE to do something for the handicapped and gifted, but do something for all and include us.

Ms. CHISHOLM. Thank you.

No further questions.

Mr. BRADEMAS. Mr. Jeffords.

Mr. JEFFORDS. In view of the bells ringing, I will be brief. I have one question for Mr. Van Hook. I notice you express in your statement concern that NIE has not spent more time in research of the area of vocational education, yet Congress seems to leave that responsibility to the Office of Education. I wonder if you feel it would be wise to have duplication of efforts in these two agencies, whether that would develop friction or whether you would suggest transferring the funds over to NIE? How do you feel about that?

Mr. VAN HOOK. There are some real concerns on the part of vocational educators as far as visibility would be concerned in the educational community. We fought for a number of years for the kind of visibility we have through the Office of Education at the present point in time. That has been a somewhat eroding position, incidentally, over the last few years as far as visibility within the Office of Education is concerned, but certainly at this point in time it represents visibility. We have some real concerns about the length of time it might take to establish such visibility in another agency which appears to be predominantly staffed by individuals not very familiar with the whole field of vocational education.

Therefore, we would suggest that at this point in time our interests are best served by remaining in the Office of Education and reserving the judgment for a change in that opinion should that makeup and orientation of the Federal elements of the educational community change.

Mr. JEFFORDS. That is all. Thank you.

Mr. BRADEMAS. Again I want to express my appreciation and that of all members of the subcommittee to all of you for your very thoughtful, as you have observed, stimulating statements you made today.

Thank you very much and the subcommittee will adjourn until tomorrow at 9:30 in this room.

[Whereupon, at 12:35 p.m. the subcommittee recessed to reconvene at 9:30 a.m., Wednesday, November 5, 1975, the next day.]

THE NATIONAL INSTITUTE OF EDUCATION

WEDNESDAY, NOVEMBER 5, 1975

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SELECT EDUCATION OF THE
COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met at 9:30 a.m., pursuant to recess, in room 2175, Rayburn House Office Building, Hon. John Brademas (chairman of the subcommittee) presiding.

Members present: Representatives Brademas, Lehman, Cornell, Hall, Jeffords, and Pressler.

Staff present: Jack Duncan, counsel; Patricia A. Watts, administrative assistant; Mike Cohan, staff assistant; and Christopher Cross, senior education consultant.

Mr. BRADEMAS. The subcommittee will come to order for the purpose of further consideration of H.R. 5988, to extend the authorization of legislation for the National Institute of Education.

The Chair would like to observe today the third day of hearings on this important legislation. Over the past 2 days we heard testimony from very knowledgeable authorities on American education, and the contribution we have received from them has been invaluable to our understanding of the NIE.

We are pleased again today to have more leading figures involved in the Nation's educational process and look forward to their contributions to our understanding of the role of the National Institute of Education.

We shall be operating this morning with two panels of witnesses and we are pleased to, first, call to the witness table Joseph Cronin, representing the American Educational Research Association, and Robert Egbert and David Krathwohl, representing the American Association of Colleges for Teacher Education, and Ray Peterson, representing the Council of Chief State School Officers, and Charles Saunders, representing the American Council on Education.

Gentlemen, would you like to come forward. I would suggest, if agreeable to you, that each of you summarize your prepared statement, making the major points you would like to make, and then questions can be put to you. Shall we begin in the order I suggested, Messrs. Cronin, Egbert, Krathwohl, Peterson, and Saunders.

[Mr. Cronin's prepared statement follows:]

PREPARED STATEMENT BY JOSEPH M. CRONIN, ON BEHALF OF GENE V. GLASS, PRESIDENT, AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

I am pleased to offer this statement on behalf of the American Educational Research Association in support of the reauthorization of the National Institute of Education. The 12,000 members of AERA include most of the individuals in

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this country actively engaged in the disciplined inquiry on problems of education, and many others whose interests in education lead them to affiliate with the principal educational research organization in the Nation.

Before commenting on the details on HR 5988 and the reasons for supporting it, I would like to review some basic points about educational research as it relates to the need for a National Institute of Education.

The last decade has seen a shift in emphasis from quantity to quality in many aspects of life in this country. Recent social crises have compelled many citizens to re-examine the forces in our culture which attempt to persuade us that bigger and more are better. More engineers did not stay the energy crisis, nor more Ph.D.'s the deterioration of the environment. Neither have more and more teachers solved many of the problems which faced American education a decade ago. Indeed, it is consistent with the times that the major problems facing American education have to do not with quantity, but with quality. Society is demanding of education:

A better fit between the education and training one receives in school and the line of work one chooses to follow.

A better articulation between the training that is offered in school and the employment prospects one may actually choose from when the time for that decision arrives.

Equality of educational and job opportunities for all citizens.

But the answers to the questions of how to provide quality education are more elusive than answers to how one can teach larger numbers of pupils in consolidated schools. The preoccupation of educators in the first half of this century was how to make schooling universal and how to manage larger and more complex schools. We are slowly turning our attention to the questions of how we can make schooling better. To answer the questions of quality requires patient search.

Finding answers in educational research is a complex process. The "subjects" are human, and the answers are influenced by the almost infinite variety of circumstances that constitute the individual's world. There are no simple answers to the persistent and nagging questions of why successive generations of poor readers emerge from public schools. A child may read poorly because of an inadequate diet, genetic endowment, inadequate parental attention, stress in the home, undetected physical problems, dull books or curricula, indifferent instructors, distractions from classmates, and many other causes. We know that each and all of these factors may affect learning, but we are still searching for the leverage points that will permit us to intervene in the problem and ameliorate it.

In its 1969 report, the Committee on Educational Research of the National Academy of Education wrote:

"Educational leaders rightly expect the scholar to help in shaping and revitalizing educational institutions and policies. The scholar is well-equipped to provide many things education needs: dispassionate criticism, identification of missed opportunities and emerging problems; a fundamental understanding of the learning process; clarification of the institutional structure of education; intervention of procedures; and painstaking elaboration of each rough, preliminary idea into a detailed ffind practical method. Finally, education needs dispassionate evaluation of each new procedure to make sure that it is educating as intended and to identify problems still unsolved."

The disciplined examination of the learning process is timeconsuming and costly, but such intense inquiry is our only hope for finding reliable solutions to many problems of schooling. Over several decades, research in educational psychology has changed methods of classroom instruction. A few examples are in order.

Early in this century, Edward L. Thorndike, the great Columbia University psychologist, turned his attention to the study of teaching and learning. In his *Theories of Reading, Exercise and Effect*, he showed that the preparation and attitude of the student, the sequence of presentation of materials, the method of exercise, and the interactions among these factors all had an effect on how well the student learned. Building on these theories, researchers have developed new methods and tools for teaching which have helped make school subjects more interesting and relevant to students.

The study of individual differences in human abilities which was launched before World War I has gradually increased our understanding of how students profit from educational opportunities. These developments and allied progress in methods of achievement testing have produced techniques of measurement and evaluation used by millions of teachers on tens of millions of pupils each year.

Advances in the understanding of the role of symbols in the learning of reaching have contributed to improvements in beginning reading methods and materials.

Virtually hundreds of studies of the learning process have gradually added to our understanding of schooling. Over many years, these increments in our understanding have resulted in significant improvement in the way children are deucated. This understanding has not always been popular nor given us comfort. It has often led us to question some of our cherished and longstanding methods. Nevertheless, the continuation of the inquiry is essential; as Dr. Stephen Bailey testified to this committee when the NIE was first proposed:

"The principle behind [this legislation] is that if man will focus his skills, reason, and humaneness upon his problems, he can markedly improve his condition."

The focus of which Bailey spoke takes time to develop. The politically storym past of the NIE has not allowed sufficient time to judge whether the experiment can succeed. The agonies of creating a federal agency to coordinate and lead Educational R&D were vividly and poignantly portrayed b former HEW Educational R & D were vividl and poignantly portra ed by former HEW Assistant Secretary for Education James J. Gallagher. In a letter in June 1972 to then HEW Secretary Elliot Richardson, Dr. Gallagher outlined the metamorphosis such an agency must undergo:

"Each new program seems to go through several stages that too often end in disillusionment and dispair. These steps, as I have observed them are:

1. An inordinate enthusiasm for the capabilities of the new program or new institution to solve almost any problem in its sphere of action.
2. This is followed by limited funding which prevents the execution of the new programs in the scope of size necessary to carry out the mandate.
3. An unfriendly review by Congress or OMB, after two or three years, which sheds crocodile tears about the unfulfilled promises of the program and concludes it has not and cannot do the job.
4. This report is shortly followed by level or decreased funding, and all the bright promises do, in fact, go down the drain."

Much of what Gallagher predicted has come to pass. Many NIE supporters have warned against the shortsightedness of calling the agency to account before its efforts could reasonably be expected to have reached fruition. Daniel P. Moynihan likened this impatience to pulling a sapling from the ground after two years to see if the roots had grown.

The arguments presented to this Committee in 1971 for establishing NIE are as persuasive and valid today as then. The mission of educational R & D is certainly as complex, challenging, and essential as that of research in health and agriculture; yet, these fields were given federal support for decades before any dramatic breakthroughs occurred. The testimony that preceded the creation of NIE contained strong pleas for Congressional faith and patience to counter the pressure for immediate results; a pressure incompatible with the nature of social science research. In the words of Moynihan when he opened the hearings of the House Select Subcommittee:

"I have never known a measure put to the Congress on a more sober and reasoned basis, nor any received in a so similar spirit."

With expectations for educational R & D clarified, AERA reaffirms its support for the concept of a National Institute of Education as a vehicle for improving American education. The NIE's current and planned programs demonstrate the Institute's focus on our most pressing and complex educational problems.

Turning to the reauthorization legislation before this Committee, I would like to make several specific comments that I firmly believe would strengthen the Institute to match its challenge and potential "to provide leadership in the conduct and support of scientific inquiry into the educational process."

We strongly endorse the conclusion of the recent report of a prestigious group of consultants to the NIE that states "particularly in view of . . . the need for high quality work, we find the present staff size for educational R & D simply inadequate." Not since the Cooperative Research Act has federal government been attentive to the need for training. We urge support of training and recruitment. In this way, NIE will be responsive to an essential aspect of its charge.

We recognize and support the continuing need for long-term institutional support to assemble a group of scholars to conduct relevant programatic research. The network of Educational Research and Development Centers and Laboratories represents one national resource that has demonstrated its ability to conduct quality programatic research.

We recognize the need to foster the work of individual scholars. The NIE Field Initiated Research Grants Program of 1973 is one mechanism that might be reinstituted to take advantage of the expertise that lies outside of the NIE. We also support federal efforts which would stimulate and build R & D capacities at state and local agencies.

We believe greater emphasis must be placed on the existing Educational Resource Information Center (ERIC) to enhance that capability. The Clearing-house System is used more than 10 million times a year by teachers, administrators and researchers and is becoming an essential dissemination channel.

We support the continuation of the National Council for Educational Research and the several changes in provisions concerning membership on the Council and quorum requirements. These should help provide continuity of policy for the Institute's staff and HEW. In addition, however, we suggest that Congress express its intention that this policy board encompass representatives from a broad spectrum of the educational community. The research agenda activities of the Institute should always be planned in consultation with citizens and educators at all levels, both researchers and practitioner consumers.

We support the research fellowship provisions which will make possible more extensive consultation and communications between field researchers and the staff of the Institute.

We support the efforts to provide a greater focus for educational research by identifying five priority areas, while expressing concern that other major areas for research—including education in the arts citizenship education, and violence in the schools, for example—be preserved as options at the discretion of the Council and NIE staff. The Institute should always be alert to identifying and supporting new topics for timely and productive research.

An original objective for the Institute, that of research on learning and the learning process should be included on the permanent research agenda. This topic should be highlighted as a vital component of educational productivity and basic skills.

We support the continuation of two other features of the legislation: the provision of staff appointments exempted from Civil Service requirements and the requirement that 90 percent of the Institute's budget be spent on research in the field through grants and contracts. These features allow the Institute to call upon the best of available talents throughout the field of educational R & D.

Although not an immediate issue for the reauthorization of NIE, we support efforts that would more closely centralize the Federal Government's resources in Educational R & D. Likewise, we would support an organizational structure within the government that increases the visibility and prestige of education and educational R & D within the Executive Department.

We are concerned by actions of the Appropriations Committee that have the effect of legislating the nature and objectives of the NIE. Although earmarking funds may be appropriate in certain circumstances, in principle, we believe such actions as a matter of long term policy would limit the flexibility, discretion and wisdom of the Congressional Authorizations Committee, the Institute, and its Council to utilize its resources in the most beneficial and productive manner.

AERA expresses concern about two features of the authorization bill H.R. 5988 and suggests these modifications:

The period of authorization should be extended from three to at least four years or for as long as the other titles of the Higher Education Admendments are authorized.

Greater financial support should be authorized, with planned increases in the Institute's budget of $35–$50 million for each subsequent year.

Only through this kind of increased dollar investment and long-term legislative commitment to the Institute can research hope to find ways to attack such complex and critical problems as equal opportunity, productivity, career preparation, and effective dissemination of research findings to teachers and agencies who use the results to make a difference in the Nation's classrooms.

STATEMENT OF JOSEPH M. CRONIN ON BEHALF OF GENE V. GLASS, PRESIDENT, AMERICAN EDUCATIONAL RESEARCH ASSOCIATION

Mr. CRONIN. Thank you, Congressman Brademas. I am Joseph Cronin, State superintendent of education, formerly the vice-president to the American Educational Research Association, and I am present-

ing testimony on behalf of that association for the current president Gene Glass.

We speak in strong support of the National Institute of Education, which now plays a significant role in the production of research, dissemination of it, and, with proper funding, could play an even more important role in American education. And I speak not only as one who has conducted research but currently as a consumer of research in a large State education agency and as a link in the dissemination chain in terms of how these ideas get to local school systems, classrooms, and other educational programs.

We recognize and support the continuing need for long-term support for groups of scholars to conduct important research. We think the network of educational research and development centers and laboratories represents one national resource that has already demonstrated its ability to conduct quality programmatic research.

At the same time, we recognize the need to foster work of individual scholars; some of the most important breakthroughs will be achieved by one person or a small group working by themselves, and the National Institute of Education feels the initiated research grants program of 1973 is one mechanism that could be reinstituted to take advantage of the expertise that lies outside of the National Institute of Education and even outside of the centers and labs.

We will speak in strong support of the ERIC system as a way for practitioners to get the information they need. It is used more than 10 million times a year by teachers, administrators, and researchers and is becoming an indispensable dissemination channel. The notion of a national council for education research, we think, ought to be continued and those changes concerning the membership requirements make good sense to the research community.

We also support the research fellowship provisions to make possible improved communications and consultation between field researchers and the staff of the National Institute of Education. The idea of having five priorities makes sense to us, although we would always hope that the Institute and the Congress, in looking at the Institute, could make provision for other major areas for research—for example, education in the arts and humanities, education for citizenship—and these options should always be there for the Council and the National Institute of Education staff. There should be some resources set aside from the priority lists even though those are terribly important.

We support the continuation of two other features: provision of staff appointments being exempted from civil service requirements, also the idea that 90 percent of the budget must be spent on research in the field through grants and contracts.

We have two reservations about the bill before you right now, and one is about the length of authorization. We believe it should be for at least 4 years or the same term as the other titles of the higher education amendments. We also feel strongly that greater financial support should be authorized, with planned increases in the Institutes, the budget being of the order of $35 to $50 million increase per year that we request for each year of the authorization. Only through this level of support can we expand the effectiveness of research and do a better job disseminating the results. Thank you.

Mr. BRADEMAS. Thank you very much, Mr. Cronin.
Mr. Egbert.

STATEMENT OF ROBERT L. EGBERT, GOVERNMENTAL RELATIONS COMMISSION, AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION, ACCOMPANIED BY DAVID KRATHWOHL, DEAN, SCHOOL OF EDUCATION, SYRACUSE UNIVERSITY

Mr. EGBERT. I am speaking on behalf of the American Association of Colleges for Teacher Education and also the Association of Colleges of Education in State universities and Land Grant Colleges and Affiliated Private Universities. I am presently dean of Teachers College at the University of Nebraska in Lincoln.

We strongly support and endorse the National Institute of Education and, in general, support the current proposed legislation. However, I will speak a little more about that later.

Some have questioned the success of the NIE. We should like to suggest that the success of a research and development effort should be measured both by the outcomes of the research and development activities and also by the degree to which these research and development activities are judged by practitioners to be successful and hence to be used in their programs.

I should like to speak for just a few moments about one such undertaking which has been financed first through funding available to the Office of Education and later through the National Institute of Education.

I commmenting on this program which has taken more time than simply the life of the National Institute, I should like to suggest that research and development activities are time-consuming, that we cannot expect 1- or 2-year major outcomes. The Wisconsin Research and Development Center in 1967 began a skills developmental program in the area of reading. This program was tested initially in Wisconsin schools, developed through testing then in schools of a number of other States and, when it became available broadly in 1972, rapidly spread throughout the country.

I have here a map which shows the spread of this particular program over this relatively short period of time. You will notice that the amber color indicates that the program was initiated and tested on a pilot basis in the years 1967 to 1970. Further field testing took place in five additional States in 1970 and 1971, still further field testing in 13 additional States in 1971 and 1972 and then, over the past 3 years, this program has extended throughout the entire country. There are now 4,000 schools using the program.

I am not, of course, endorsing this particular program but suggesting that this is one of many such programs that has been funded through the National Institute of Education which has been successful and which has been judged by practitioners also to be successful.

Specifically we recommend, in relation to the reauthorization of the National Institute of Education, first that it be reauthorized and, second, that the period of 3 years is too brief. We would recommend, at a minimum, the same authorization being proposed for other portions of the higher education amendments—that is, 4 years.

We believe that the level of authorization is not sufficiently great. We would recommend that the 1977 authorization be $110 million and that this authorization level be increased by approximately 25 percent each year—that is, $138 million in 1978, 173 in 1979 and 216 in 1980.

We would concur with the testimony just given by Dr. Cronin, supporting, first of all, the notion of the labs and centers and the programmatic research they have been conducting successfully over the years. We would endorse also the importance of the individual researcher at the university, the researcher who has a great deal to contribute to the overall program.

We would endorse a broadly representative national council for educational research, advising the NIE.

We also would recommend that particular attention be given to the dissemination effort. We recognize the need for the dissemination of research and development information and products and we would recommend that Congress consider the possibility of authorizing additional amounts specifically for dissemination as we learn even more about the dissemination process.

Those, then, are the recommendations from our organizations.

Mr. BRADEMAS. Thank you very much, Mr. Egbert. Mr. Krathwohl, did you wish to add anything?

Mr. KRATHWOHL. If I may, sir. I am David Krathwohl and I am chairman of the Legislative Liaison and Planning Committee of the Association of Colleges and Schools of Education and State Universities and Land-Grant Colleges and Affiliated Private Universities and dean of the School of Education at Syracuse University.

Mr. Congressman, I have heard you say, and others, that nobody speaks for educational research, that it is one of those things that, when you pass legislation, nobody comes up and tells you it is important. I am here this morning to tell you there are some people who will tell you they think it is important.

As chairman of the legislative liaison group, we began last year to work with some other organizations to see whether we could not together support the reauthorization of the National Institute of Education. At that time not everybody was all that happy with what was going in the National Institute. Nonetheless, when we got this group together—and it began with only nine organizations—when we got the group together we found they were all supportive of educational research and supportive of the concept of the NIE and they thought it was important to support it and get it on the right road and to help it to grow and develop.

That group has worked together over that period of time since about a year ago. We worked together with respect to the choice of a new director of NIE and, most recently, we worked together to prepare a statement which you have before you this morning.

Now, that statement is, if you want to think of it that way, a kind of a least common denominator among the points of view that are represented by these organizations. Many of the organizations are giving separate testimony, as indicated by the asterisks on those organizations at the end of the statement, and they will amplify some of the points that are made here.

But all of them agree on the importance of educational research, on the importance of having a place like the National Institute of

Education, which has a central responsibility and can develop a role of leadership in educational research. In a very real sense they feel that the Federal level has a particular responsibility here. The State level and the local level are bedeviled with the problems of running schools day by day and don't have resources to put in the kind of long-range planning and development that is represented by educational research.

All of them agree that education requires a place from which new ideas can develop and from which there is a sense of renewal. I think they all agree educational research represents a way in which ideas that don't work can be put aside. In many instances, we have new ideas coming up.

I liked the whole idea of subcontracting to outside agencies to come in and do teaching in the schools. That looked like a red-hot idea at the time it was proposed. Yet educational research was able to show it didn't really make that much difference, so it was laid aside.

Educational research plays an important role in taking ideas developed in the school and saying, "Yes, they are great," like multilevel schools, which has grown, and subcontracting, which has not.

It is important, too, to develop a kind of storehouse of knowledge from which important decisions can grow. The Brown versus Board of Education decision, for instance, would not have been given the way it was if there had not been a background of educational research which showed what happened to the self-concept of children in segregated schools.

All of the recent findings of finance of education grew out of educational research that had been done previously and which was in that storehouse of knowledge ready to be used, so it is important that we have the kind of storehouse.

The National Institute of Education therefore represents the one place in the Federal Government where this is vocalized, where they can provide some leadership in this area. So we feel it is very important therefore this organization be reauthorized.

The group, in discussing NIE, felt they would like to support the reauthorization of NIE for at least as long as the rest of the amendments in the higher education amendments would run. They are concerned about the shrinkage of resources of NIE, starting from $120 million, going down to $70 million. They are pleased to support $110 million, which is the planning figure we understand HEW and OMB approved for NIE, and we are hopeful that instead of $70 million it will come in at $110 million in terms of authorization this coming year.

We would like to think some increase from that figure is warranted. We suggest $360 million for a 3-year period or, if it is authorized for a longer period, appropriate adjustments.

We feel that a broadly representative National Council of Educational Research is very important. The link of NIE to the field has been a problem in the past, which I think you are well aware of. The National Council can serve as an important link that can be strengthened and it can be expanded if necessary and we feel it should serve that link and that NIE should work to develop good relationships with the field. We feel that has been one of the things they need to work harder on.

We feel that the National Council on Educational Research changes that are in the administration bill and the provision for fellowships are appropriate and we would support those.

I would like to indicate that statement is signed by 27 organizations, or there are 26 listed there and I would like to add this morning also the Council of Grade City Schools, of which Sam Husk is executive, vice president. We were unable to contact them prior to the time the statement was developed, but they are: American Association of Colleges for Teacher Education; American Association of School Administrators; American Council on Education; American Council on the Teaching of Foreign Languages, Inc.; American Educational Research Association; American Federation of Teachers; American Vocational Association, Inc.; Association for Supervision and Curriculum Development; and the Association of Colleges and Schools of Education in State universities and land grant colleges and affiliated private universities.

Consortium of social science organizations: American Anthropological Association; American Historical Association; American Political Science Association; American Psychological Association, Inc.; American Sociological Association; Council for American Private Education; Council for Educational Development and Research, Inc.; The Council for Exceptional Children; Council of Chief State School Officers; Education Commission of the States; National Association of Elementary School Principals; National Association of Secondary School Principals; National Association of State Boards of Education; National Council for the Social Studies; National Council of Teachers of English; National Council of Teachers of Mathematics; and the National Education Association.

They all have had representatives at our meetings and all have been contacted with respect to this statement, and I think this represents probably the largest and most varied group supporting NIE that at least I am aware of in the past; and we commend, therefore, to your attention the statement and hope very much that it will be taken seriously and that it will be reauthorized.

Mr. BRADEMAS. Thank you very much, Mr. Krathwohl.

[The prepared statements of Messrs. Egbert and Krathwohl follow:]

PREPARED STATEMENT OF ROBERT L. EGBERT, DEAN, TEACHERS COLLEGE, UNIVERSITY OF NEBRASKA-LINCOLN, ON BEHALF OF AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION

Mr. Chairman and members of the Subcommittee, I am pleased to have the opportunity to appear before you and speak in support of H.R. 5988, a bill to reauthorize the National Institute of Education. We would like to thank the Committee for inviting the American Association of Colleges for Teacher Education (AACTE) and the Association of Colleges and Schools of Education in State Universities and Land Grant Colleges and Affiliated Private Universities (ACSESULGC/APU) to testify concerning this reauthorization. The American Association of Colleges for Teacher Education is the oldest and largest teacher education organization, representing 850 member colleges and universities that annually produce more than ninety percent of the new teachers for the nation's schools. The Association of Colleges and Schools of Education represents the interests of most of the nation's large, multi-purpose universities.

We welcome this opportunity to present the viewpoints of those professionals charged with the responsibility of preparing and providing continuing education to the 2.9 million school teachers, counselors, and administrators. Included within

our membership is a large educational research and development work-force—the some 10,000 researchers and developers housed in our nation's schools and colleges of education—doing the basic and applied research designed to affect changes in our nation's schools.

When Congress voted the National Institute of Education into existence in 1972 it also provided a first year appropriation of $142 million. In effect, these actions said that educational research and development was important and that there was validity in searching for how the country's 59 million school aged children learn, how teaching influences learning, how schools function and how previous research findings could be translated into products and put in the hands of teachers. Congress gave NIE a broad mandate, for it said that the Institute should be the focal point for all educational R. & D. efforts funded by the Federal Government, and that it should systematize and coordinate the R. & D. activities throughout the country.

With high hopes and many aspirations, the Institute began its program. However, since 1972, there has been a steady erosion of financial support within the Congress for the Institute. In fiscal year 1975, NIE had an obligation of only $70 million, a decrease of 7.6 percent from its 1974 budget and 34.5 percent from its 1973 budget. Given the magnitude of need by educational personnel to be able to function more effectively, we suggest that this is an intolerable situation.

Education is today the major occupation of 62.2 million children, youth and adults in the United States. Last year more than $96 billion was spent by educational institutions in providing various learning services. Yet the Federal investment in educational knowledge production and utilization was less than one percent of the Federal outlay. When compared to federal support for medical, agricultural or military R. & D., this is almost too miniscule to note. America's future depends upon providing the very best education possible.

The NIE must have the support necessary to effect accumulative and reality-based knowledge production and effective and timely knowledge utilization. Recent National Education Association needs assessment surveys of practitioners have shown that teachers want help from the researchers on a variety of problems:

How to help learning on the part of children and youth from different ethnic/cultural backgrounds.

How to deal with the unique learning needs of handicapped children in "mainstreaming" environments.

How to assess their own performance as well as that of their students.

How to deal with violence and disorder in the schools.

How to better teach facts, concepts, ideas, attitudes and skills to all children.

How to mobilize other community human resources to bridge the gaps between the schools and the "world of work".

How schools might be better organized to be more responsive to communities.

The National Institute of Education remains the primary source of funds to address such problems through educational research and development. The $260 million appropriated over the three years the Institute has been in existence, however, is a small amount to spend on R & D in the $96 billion enterprise that is education. Nevertheless, the Institute's support for research in education is critical and the professional education community is anxious to cooperate with the Congress in helping the NIE grow stronger.

NIE has had some success stories that have received too little attention. Some important successes include:

The California Beginning Teacher Study is a major effort to help the California Commission on Teacher Preparation and Licensing respond to a legislative provision that the competencies or skills of beginning teachers must be identified and scaled for licensing purposes. This study, to be completed in two years, will give certification and licensing personnel in California and many other states information needed to revise their requirements and the programs of schools, colleges, and departments of education.

The University of Wisconsin based Individually Guided Education program has now been adopted by 2000 elementary schools with another 2000 using the reading materials from this program.

The ERIC network of sixteen national clearinghouses are now being used more than 10 million times annually by teachers, administrators and researchers.

The UCLA Evaluation project has trained more than 2500 administrators and teachers to do evaluations of their own institutions while another 10,000 have received the training materials and evaluation kits.

NIE has many other success stories to tell, the combination of which would seem to more than justify the $240 million spent to date on its educational R & D initiatives. It is because of past successes continuing demand and the efforts of the new NIE leadership to be more responsive both to Congress and the educational community that we strongly urge Congress to reauthorize the National Institute of Education.

AACTE and ACSESULGC/APU are two of twenty-six organizations which have prepared a separate statement in support of the reauthorization of the National Institute of Education. (A copy of that statement is appended for reference.) We see the statement of the twenty-six organizations in support of educational research and development as something of a landmark in its field. Such support for educational research and development is very heartening. We strongly support these recommendations. But our organization would like to view them as a base, a floor, or a minimum, and to offer even stronger recommendations than the twenty-six organizations were able to mutually agree upon.

On behalf of our own organizations and our colleagues, we suggest that:

While we agree that the reauthorization of NIE for at least a three-year term is essential to a sustained and stable effort, we would like to see a four-year term or even longer. Ideally, we would like to see NIE authorized without expiration date. The Congress could still exercise control through appropriation mechanism, providing appropriate rewards for especially good progress, or feedback that improvement is needed.

As the Campbell Commission notes, the whole educational research and development effort is too small and needs to be expanded. If Congress agrees to the authorization limits suggested by the twenty-six organizations and *appropriates to the full extent of these limits*, that would be a significant step forward from NIE's present position. We would like to suggest, as an alternative, that an authorization limit built on a factor of about 10 percent for inflation and a 15 percent growth rate shollld be given serious consideration. Starting with $110 million in 1977, this would work out to $138 million in fiscal year 1978, $173 million in fiscal year 1979 and $216 million in fiscal year 1980.

We also believe that continued support should be given to the educational research and development centers and laboratories which have been brought into being by past administrations. While it is true that these centers are variable in their quality, much of this variation is accounted for by factors of location, clientele, and administrative treatment. However, there are none that could not, with proper administration be strengthened into serving the important needs they were designed to fill. We would urge their continued support as a national resource. Further development along these same lines may be necessary for NIE to carry out a properly balanced program.

The dissemination responsibility which NIE carries is an extremely important one. Again, quoting from the Campbell Commission report, ". . . inquiry . . . even at its most successful (level) . . . will not be self-executing . . . a research finding that certain activities by the teacher can reliably produce certain results in a classroom will require a long chain of deliverate action to produce results . . ." It is the task of the dissemination effort in NIE to find what are the most appropriate actions and how to bring them about in the field of education. We believe that there should be a continued effort on the part of NIE to disseminate the many products which result from its present efforts. In addition, a substantial portion of its resources should be used to research the means for determining the most effective dissemination procedures, devising, implementing, and evaluating new ones.

The amount of money which NIE is able to provide from its current budget for dissemination purposes is entirely inadequate. We suggest Congress give recognition to this fact and that as NIE develops additional effective procedures for dissemination it be permitted to request an additional authorization specifically for dissemination purposes.

We reaffirm our support of the National Institute of Education, and urge support of the points raised in the statement of the twenty-six organizations referred to earlier, as well as consideration of the additional recommendations made herein.

PREPARED STATEMENT OF DAVID R. KRATHWOHL, DEAN, SCHOOL OF EDUCATION, SYRACUSE UNIVERSITY, ON BEHALF OF SELECTED EDUCATIONAL ORGANIZATIONS

STATEMENT IN SUPPORT OF THE REAUTHORIZATION OF THE NATIONAL INSTITUTE OF EDUCATION

As a group of organizations, we go on record as supporting the reauthorization of the National Institute of Education. Together with the distinguished Campbell Commission,[1]" . . . We reaffirm completely the wisdom of Congress and Executive Branch in establishing the Institute as an important means of improving education.

No institution of society such as education can sustain improvement without a source of fresh ideas and new knowledge about itself. While these can come from a variety of sources, there is general agreement that a major force in such forward movement is a sustained, wide-ranging, and organized program of research and development. In the area of education, the current focus of such endeavor on the Federal scene is the National Institute of Education (NIE). It is critical that its existence be assured and continued.

The demand for human service funds, education included, always exceeds the available resources. The pressure is especially heavy if one bears day to day operational responsibility. Already, local and state levels bear such responsibility for the schools, but the Federal level is the one which is free of such day to day operational responsibilities. It, therefore, can and must direct its funds to those areas which will provide the greatest long-term development of education. Educational research and development has surely one of the strongest claims.

The National Institute of Education is the key agent in this effort. It can and should provide a leadership role in attacking educational problems, in pointing the way to solutions and in developing the base in human institutional and organization resources for improving the teaching and learning of children. Again, to quote from the Campbell report: "Though the Institute's life has been brief, and its critics legion, its future potential is fully equal to the Institute of Health and the Science Foundation . . ."

Authorization for the Institute should be renewed for at least as long a period as are the titles of the Higher Education amendments. In no case, however, should it be less than three years.

Despite education's heavy dependence on NIE as a source for research and development funds, NIE's resources have shrunk from $120 million to $70 million per year. The $260 million appropriated over the three years it has been in existence was substantially less than near the $550 million authorized. Seventy million dollars is a pitifully small amount to spend on R. & D. in the over $100 billion a year enterprise that is Education. What efforts there are therefore, must be husbanded, and indeed, they need to be helped to grow stronger and larger. Funding latitude for future growth of NIE is essential.

It is recognized that past performances have not been encouraging in this regard, but the administration has been in flux and now seems ready to move forward in an organized and definitive manner. The Executive Branch's OMB and HEW have approved for planning a $110 million budget for NIE for 1977. We support this and further suggest an authorization of $360 million for a three-year period would be appropriate. Authorization for a longer period would call for appropriate adjustments.

A broadly representative National Council of Educational Research should be a part of reauthorization, for the Council can be an important link in relating NIE to its client, the educational community. Congressional approval of nominations toward this end is encouraged. Congress should also encourage the agency to expand its efforts to relate to its clients.

The changes included in the Administration's NIE Reauthorization Bill with respect to the National Council on Educational Research and for fellows are appropriate. It is recommended they be included in the final legislation.

As a group of educational organizations, we represent constituencies which embrace the whole educational spectrum. This represents the first time that such a large and varied group of organizations have come to agreement on the supoprt of an educational research and development program. We think this has considerable significance and call it especially to your attention. We strongly urge your support of these recommendations.

[1] Research and Development Funding Policies of the National Institute of Education: Review and Recommendations, a report of a commission of consultants, chaired by Round F. Campbell, to the National Council of Educational Research, August 1975.

Mr. BRADEMAS. Mr. Peterson.

STATEMENT OF RAY PETERSON, DIRECTOR OF FEDERAL-STATE RELATIONS, COUNCIL OF CHIEF STATE SCHOOL OFFICERS, WASHINGTON, D.C.

Mr. PETERSON. Mr. Chairman, Mr. Lehman, and members of the staff, I am Ray Peterson, director of Federal-State relations, Council of Chief State School Officers. The council represents the chief education officials in all of the States and extrastate jurisdictions.

We support the reauthorization of the Institute for a term of not less than 5 years and, Mr. Chairman, we believe the annual levels of funding provided for in the original authorizing legislation are the funding levels which should be maintained. We do not agree with those who say that the need is less sday. We feel that the need is greater and that those are realistic figures.

It is our hope, of course, that in the future the NIE will become a part of a department of education, with a Cabinet-level Secretary. We would like to see an eventual expenditure for educational research and development which would rise to between 5 to 10 percent of our total spending on education, in contrast with the current inadequate level of less than 1 percent.

We believe that we are seeing vast new opportunities today for the improvement of our society through institutions such as the public schools. Research has shown a great educational potential for early childhood and family services which could be partially provided in public schools if the developmental resources were available. The potential for lifelong education for increasing numbers of older and retired citizens demands the support of new research and development thinking.

In H.R. 5988 we would like to see a 5-year authorization. We agree with Superintendent Cronin that the additional five priorities which the bill suggests would be useful, but as subobjectives of the original purposes written into the legislation by your committee, so as not to be unduly limiting.

We support the National Council on Educational Research, on which we have been represented. We feel that the education community is able to bring the concerns of working educators to the Institute through this council. We might suggest that representation on the council be broadened further—for example, to include teacher organizations.

We believe that much is still to be desired in analysis of the NIE budget and priorities. We are concerned that, in the fiscal year 1976 budget planning for $80 million, only $5 million was programed for work in the education equity area.

Likewise, direct work with schools in the area called Capacity Building, and the experimental schools program received an allocation of $8 million, or only 10 percent of the NIE program. We support the Institute's work on teacher centers, as it is relevant to the concerns of working teachers.

We think that two recent events show a need for revision of NIE's budget priorities. The Congress found it necessary, in the Educational Amendments of 1974, to direct NIE to commence a study of title I,

the Federal Government's major elementary and secondary education program. The President had to ask Daniel Moynihan for an authoritative review of busing. NIE should have already been providing usable data in both areas.

The Chief State School Officers are most interested in this study of title I. We hope that the Institute will come back with a useful report which will, in fact, point us to the most promising alternatives for educating children of the poor, and not report a rationale which will tell us that we could get better results if the moneys were spread more broadly to children of the not-so-poor.

In NIE funding policy, Chief State School Officers support the concept of diversity of performers, and a variety of procurements, including open competition, restricted competition, unsolicited proposals, and research grants to a variety of researchers and developers.

We believe there has been something of an imbalance in awards in 1975. Labs and centers received 42 percent of the total NIE appropriated dollars, and colleges and universities received slightly over 25 percent. State and local education agencies, however, received only approximately 10 percent of NIE's awards in 1975.

We support the recommendations of the Campbell report regarding the future of the labs and centers in NIE work. We agree that careful review should limit the institutional support provided to labs and centers by NIE to a few highly qualified performers, closely directed by NIE, and the work being specifically limited to priority areas designated by the Institute.

Chief State School Officers do not believe the Institute has made anything like an adequate commitment to assist or cooperate with State education agencies. We believe that the school practice and service program which NIE has proposed seems most promising for SEA-LEA Federal articulation in development programs, but we don't feel the dollars allocated are sufficient. The program would propose, for example, a consumer information guide and a research and development information center, which we think would be useful.

The States have demonstrated the capacity to develop information and communications systems useful to research and development, including information centers, extension agent networks, program demonstrations, and teacher centers.

We urge the committee to insert language in section 405 which would make more clear and forceful the intent that the Institute utilize the capacity of State and local education agencies in research and development work, and direct that LEA's and SEA's be involved in assisting NIE in developmental work and implementation in the schools.

In conclusion, Mr. Chairman, we feel that this is a time in which numerous other human development programs are under attack, including National Science Foundation programs, proposed programs in child and family services and others. Our country needs an improved and humanistic educational system. A vigorous and balanced development effort in the Institute can help provide it. Thank you.

Mr. BRADEMAS. Thank you very much, Mr. Peterson.

[Mr. Peterson's prepared statement follows:]

PREPARED STATEMENT OF RAY PETERSON, DIRECTOR, FEDERAL-STATE RELATIONS, COUNCIL OF CHIEF STATE SCHOOL OFFICERS, WASHINGTON, D.C.

Mr. Chairman, Members of the Committee, we appreciate the opportunity to testify before you this morning on the reauthorization of the National Institute of Education.

The Council of Chief State School Officers represents the chief education officials in all states and extra-state jurisdictions. We believe the establishment of the National Institute of Education by this Committee and the Congress in the Education Amendments of 1972 was a most significant step in establishing a higher national priority for education in the federal government. We must have a national effort in educational research and development if we are to have the educated citizenry which our representative form of government and our civilization requires.

We support the reauthorization of the Institute for not less than five years with at least the annual levels of funding provided for in the original authorizing legislation, that is at least $900 million dollars for the five years.

Mr. Chairman, our Council wishes to work closely with the Committee in achieving an improved priority for education within the federal government, despite the current unfavorable attitudes in Washington toward increased expenditures. It is our hope that the NIE will, in the near future, become a part of a Department of Education with a Cabinet-level secretary. We hope to see the federal contribution to the total cost of education in the country rise to four times its current minimum level of approximately 8%. And, we would like to see an eventual expenditure for educational research and development which would rise to between 5 to 10% of our total spending on education, from the current inadequate level of less than 1%. The public institution which under law trains our children for at least 10 years must have the constant revitalization of the best new ideas available for educating children.

Historically, we admit that the public schools have not implemented the best available new methods and materials quickly enough. In recent years this difficulty has been highlighted by the increased pressure our society has placed on schools to meet crushing social and governmental problems. In this period of economic difficulties, the very survival of many public and private schools is threatened by state and local fiscal difficulties; research can help us find new ways to educate more efficiently to overcome financial problems. The destabilization of family, community, and institutional relationships in our society has placed the stresses of individual insecurity, social class integration, declining student achievement and even violence into the public schools; we desperately need the best of educational and social science thought to cope with these stresses. Changing demography and employment patterns call for totally new patterns of education for work which must emerge from research and development.

At the same time we are seeing vast new opportunities for the improvement of society through institutions such as the public schools. Research has shown us the potential for early childhood and family services which could be at least partially provided in the public schools, if the developmental resources were available. The potential for life-long education for increasing numbers of older and retired citizens demands the support of new research and development thinking.

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We would like to see the Institute provided with the stability of a five year authorization. We believe that this step, along with an adequate level of financial support, would help the public, the education profession, and other federal decision-makers understand that educational research and development deserves more careful consideration than heretofore. The recent Campbell Report* indicates that educational research and development manpower is insignificant in size in comparison to research and development manning levels in health, other sciences, or energy. Surely education will be of at least comparable importance through 1980.

We believe that the objectives established by the Congress for NIE in 1972 in Section 405(b)(2) are appropriate general objectives and should be retained. The additional more specific priorities proposed by the Institute in H.R. 5988 are also necessary and appropriate. We believe that these priorities—(1) for

*Campbell, Roald F., et al., Research and Development Funding Policies of National Institute of Education: Review and Recommendation. Final Report of Consultants. National Institute of Education. August 1975.

improving student basic skills, (2) overcoming problems of finance, productivity, and management, (3) providing equality of opportunity, (4) preparing students for careers, and (5) for improved dissemination of the results of research and development—should appropriately be added as specific sub-objectives in the law.

We enthusiastically support Section 3 of the new bill, establishing research fellowships in the Institute. We would hope that through this and other means, a long-standing recommendation of our Council to the Institute may be achieved, that is cooperation in research and development personnel development between state education agencies and the Institute.

With regard to current law, we enthusiastically support the continuation of the National Council on Educational Research to establish general policies for, and review the conduct of the Institute. Our organization has been represented on this Council by a Chief State School Officer, and we feel that the education community is well served by the ability to bring the concerns of working educators to the Institute through this Council.

We urge the retention of the provisions of current law which allows the Institute certain exemptions from Civil Service personnel policies; we believe this flexibility is essential to quality staffing of the Institute. We believe that the Institute must be more, rather than less, innovative in staffing at all levels in order to employ persons with the necessary skill in research and development as well as actual experience in school systems. We believe that the current quality of leadership, planning, and budgeting at the Institute also warrants the Committee's assistance in ending any remaining Civil Service Commission restrictions on the Institute's staffing.

NIE BUDGET PRIORITIES

Chief State School Officers believe that, while the Institute has provided evidence of improved priority setting and budgeting, much is still to be desired in an analysis of the NIE budget.

In planning for an FY 1976 budget of $80 million dollars, only $5 million dollars was programmed for work in the "Educational Equity" areas, including bilingual education, role of women, desegregation studies, and compensatory education.

Direct work with schools in "Capacity Building," and the Experimental Schools program involved only $8 million dollars, or 10% of the NIE program for FY 1976; we urge continuation of the Experimental Schools program, and much wider dissemination of the results. We support the Institute's work on Teacher Centers as it is relevant to the concerns of working teachers.

It appears that a reasonable balance has been stuck between expenditures for types of research activity. In FY 1976, out of a $68 million dollar program budget, basic research received $10 million dollars, policy studies—$7.5 million, development activities—$27.5 million, dissemination—$23 million. We feel, however, certain individual items remain out of perspective; the ERIC System continues to provide very expensive information which must be more relevant or accessible to teachers and school administrator's needs; in 1976 this system cost almost 10% of the total available funds for NIE programs. It is also clear that the definition of dissemination has been greatly extended to reach the $23 million figure, and that states and localities have access to less than half of those program benefits.

Two recent events reflect upon NIE's budget priorities. The Congress found it necessary in the Education Amendments of 1974 to direct NIE to commence a study of the federal government's major elementary and secondary education program, Title I of the Elementary and Secondary Education Act, for compensatory education. More recently, the President has had to turn to one of the founders of the institute, Daniel P. Moynihan, now Ambassador to the United Nations, for a definitive paper containing policy recommendations on perhaps the most controversial issue in education today, school desegregation.

FUNDING POLICIES

Chief State School Officers support the concept of a diversity of performers to be funded by NIE for educational research and development. We believe that grants and contracts should be awarded through a variety of procurements including open competition, restricted competition, unsolicited proposals, and discretionary grants to a variety of researchers and developers, with a maximum publicity effort to promote awareness and access in state and local education agencies.

We believe also that quality work can be obtained by the Institute in dealing with the widest possible variety of agencies and institutions including colleges and universities, non-profit organizations, state and local education agencies, and individuals. We have found, however, a history of imbalance in awards; in 1975, regional education laboratories and the research and development centers accounted for 42% of NIE's total appropriated dollars. Colleges and universities received slightly over 25% of dollar awards. State and local education agencies, however, received only approximately 10% of NIE's awards in 1975. We feel that these imbalances are particularly disadvantageous to state and local school systems, since the Institute also does not require any articulation or coordination of research and development work/results between contractors and the state education agency in that state.

We support the recommendations of the Campbell Report regarding the future of the labs and centers in NIE work. We agree that careful review should limit the institutional support provided the labs and centers by NIE to very few highly qualified performers, closely directed by NIE, in work specifically limited to priority areas designated by the Institute. We believe that the labs and centers represent vital skills and resources. NIE cost-effective support must mandate close working ties with state and local systems, mostly absent to date.

STATE EDUCATION AGENCY—NIE RELATIONS

Chief State School Officers do not believe that the Institute has made anything like an adequate commitment to assist or cooperate with state education agencies. We are most concerned that the Institute immediately move to implement the Campbell Report recommendations in this area. In the program area called Information and Communication Systems, in which program the state education agencies are said to have their major participatory role in the Institute, less than $4 million out of the FY 1976 NIE total of $60 million dollars for programs has been actually made available to SEAs. States have clearly demonstrated over the past four years capacity to succeed in this program, to develop information and communication systems useful to research and development. These systems include information centers, extension networks, program demonstrations and teacher centers. The School Practice and Service program also seems most promising for SEA-LEA-federal articulation in development programs; in actuality, however SEAs are probably eligible for participation to a level of only $2 to $3 million dollars in FY 1976.

Of $23 million dollars which the Institute advertises as available for "dissemination," the 56 SEAs are eligible to participate in a maximum of $6 to $7 million dollars in program. (It should be noted that the Campbell Report has indicated that a single regional lab or research center would require a minimum of $3 to $4 million dollars annually for adequate support.)

In the other four major priority areas in the Institute, SEAs are only peripheral participants under current NIE policy and receive minimal funding.

We urge that the Committee insert language in Section 405(e)(1) of Public Law 92-318 which will make more clear and forceful its intent that the Institute utilize the capacity of state and local education agencies in research and development work and that LEAs and SEAs be directly involved in assisting NIE in disseminating the validated results of development work into the schools.

We further urge that the Committee Report direct the Institute to require each recipient of a grant or contract award of $100,000 or more to solicit cooperation, coordination, and comment from the state education agency on its work and the dissemination of the work results, and to include summaries of this cooperative effort in its regular reports to the Institute.

OPPORTUNITY FOR INCREASED RELEVANCE OF NIE PROGRAMS TO SCHOOL SYSTEMS

Clearly, state and local school systems, school administrators and teachers have much more to offer the Institute than is reflected in current Institute activities. The Institute has done very little to survey the states and LEAs for successful new curriculum and materials, new management techniques, or teacher training models. Cooperative development of better methods of evaluating operating federal programs could be an important contribution of the Institute. Our Council has long advocated the cooperative development of staff training programs in research and development between the Institute and state and local school systems.

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CONCLUSION

We believe that all elements of the education community must join the Congress in supporting a vigorous research and development program in the National Institute of Education. This is a time in which numerous other innovative human development programs are under attack; these include National Science Foundation programs, innovative programs under the Elementary and Secondary Education Act, and proposed programs in Child and Family Assistance. Our country needs an improved and humanistic educational system. A vigorous and balanced research and development effort in the National Institute of Education can help provide it.

Mr. BRADEMAS. We will hear now from Mr. Saunders.

STATEMENT OF CHARLES B. SAUNDERS, JR., DIRECTOR OF GOVERNMENTAL RELATIONS, AMERICAN COUNCIL ON EDUCATION, WASHINGTON, D.C.

Mr. SAUNDERS. Mr. Chairman and Mr. Lehman, it is a privilege to be here this monrning and, if I could amplify the remarks Dave Krathwohl made earlier about support of NIE from the education community, I would like to note that my remarks this morning are not only on behalf of the American Council on Education but eight other major associations in the field of higher education, including the Association of Community and Junior Colleges, the American Association of State Colleges and Universities, the Association of American Colleges, the Association of American Universities, the Association of Jesuit Colleges and Universities, the National Association of State Universities and Land-Grant Colleges, the National Catholic Educational Association, and the National Council of Independent Colleges and Universities

We all believe that the education community and the entire Nation has a vital stake in NIE's development into an effective center of basic and applied research. As the costs of education escalate and the needs of society become increasingly complex, a greater effort should be made to discover ways to teach and learn. We earnestly believe that NIE should be nurtured and given the strength to lead this effort.

At the same time, we must observe that NIE has hardly begun to realize its tremendous potential since its establishment in the 1972 education amendments. Research is needed to develop sound public policies on many important isuses facing postsecondary education, yet NIE is currently devoting only $9.1 million of its $70 million fiscal year 1976 appropriation to postsecondary research and, of this amount, $7.3 million is devoted to ongoing projects.

Lack of funds to undertake new research initiatives, on elementary and secondary issues as well as postsecondary, is one of the agency's most serious problems, as is the persistent and demoralizing uncertainty about the likelihood of appropriations at any level.

Therefore we strongly oppose the administration's unduly restrictive request contained in H.R. 5988 that NIE funding be authorized at a level of $80 million. Ideally an openended authorization should be provided and funding of the Institute should be justified annually on the merits of its work and the needs for education research.

Alternatively a ceiling should be established which more realistically reflects a moderate rate of growth and an annual inflation factor, such

as $110 million for fiscal year 1977, rising to over $200 million by fiscal year 1980, as proposed by the Association of Deans of Graduate Schools of Education.

I might add we would also recommend extension of the authority for 5 years rather than the 3 stated in the bill.

With this important qualification, we endorse the other changes in NIE's authority proposed in H.R. 5988. The restatement of NIE's mission to concentrate its resources on five priority areas of research and development adds a clarity of purpose which should improve understanding of and support for its work.

The five priority areas are of central importance to higher education as well as to elementary and secondary education: improvement in student achievement in basic skills; overcoming of problems of finance, productivity and management in educational institutions; greater opportunities for the disadvantaged, women and students of limited English-speaking ability; preparation of youths and adults for entering and progressing in careers; and improvement in dissemination of the research results.

H.R. 5988 would also provide specific authority for the director to award research fellowships in the Institute and make desirable technical clarifications in the law with respect to the appointment of members of the National Council on Educational Research.

ORGANIZATIONAL ISSUES

The bill would make no change in the location and status of NIE within the organization of the education division. I should note, Mr. Chairman, that ACE has already presented congressional testimony recommending organizational changes for the division to improve its leadership and support for education within the executive branch. A copy of our recommendations is attached as an appendix.

Our proposals would affect the status of the NIE Director and his relationship to the head of the education division. They would at the same time elevate the director to Executive Level IV—Assistant Secretary—rank and make him responsible for all research activities of the division, which would become a single, unified agency.

Under present law the director has an ambiguous status. He heads the quasi-independent agency, serves under the direction of the Assistant Secretary for Education, is authorized to conduct a broad program of education research; yet the responsibility for research on vocational and handicapped education are assigned to separate bureaus of another agency, the U.S. Office of Education.

While our recommendations would require technical changes in the law to reflect changed titles and reporting relationships, we would not propose any change in the role of the National Council on Educational Research. The NCER should continue to establish general policies for the Institute and provide an independent review of its activities. It also provides a measure of insulation from the political pressures of the bureaucracy and an important link between NIE and its client, the education community.

The subcommittee may also wish to consider another organizational change which has been suggested—that is, to establish several institutes within NIE based on the model of the National Institutes of

Health. This approach could provide a more effective focus for NIE's internal operations and encourage greater constituent support.

In the remainder of my testimony, Mr. Chairman, I simply try to state some of the reasons why education research is so important and why the future of NIE is so important not only to the higher education community but to education as a whole. Thank you.

Mr. BRADEMAS. Thank you very much, Mr. Saunders.

[Mr. Saunders' prepared statement follows:]

PREPARED STATEMENT OF CHARLES B. SAUNDERS, JR., DIRECTOR OF GOVERNMENTAL RELATIONS, AMERICAN COUNCIL ON EDUCATION

Mr. Chairman and Members of the subcommittee, on behalf of the American Council on Education, I am pleased to testify this morning in support of HR 5988, extending the authorization for the National Institute of Education. The views expressed in this statement are shared by the American Association of Community and Junior Colleges, the American Association of State Colleges and Universities, the Association of American Colleges, the Association of American Universities, the Association of Urban Universities and Universities, the National Association of State Universities and Land-Grant Colleges, the National Catholic Educational Association, and the National Council of Independent Colleges and Universities.

The education community and the entire nation have a vital stake in NIE's development into an effective center of basic and applied research. It is a truism that scarcely any major national endeavor has received as little research support as has education in all levels. As the costs of education escalate, and the needs of society become increasingly complex, a greater effort should be made to discover better ways to teach and learn. We earnestly believe that NIE should be nurtured and given the strength to lead this effort.

At the same time, we must observe that NIE has hardly begun to realize its tremendous potential since its establishment in the 1972 Education Amendments. Research is needed to develop sound public policies on many important issues facing postsecondary education, but NIE is currently devoting only 59.1 million of its 870 million FY 76 appropriation to postsecondary research—and of this amount 87.3 million is devoted to ongoing projects. Lack of funds to undertake new research initiatives, on elementary and secondary issues as well as postsecondary, is one of the agency's most serious problems—as is the persistent and demoralizing uncertainty about the likelihood of appropriations at any level.

Therefore we strongly oppose the Administration's unduly restrictive request, contained in HR 5988, that NIE funding be authorized at a level of 880 million. Ideally an open-ended authorization should be provided, and funding of the Institute should be justified annually on the merits of its work and the needs for education research. Alternatively a ceiling should be established which more realistically reflects a moderate rate of growth and an annual inflation factor, such as 8110 million for FY 77 rising to over 8200 million by FY 80, as proposed by the association of deans of graduate schools of education.

With this important qualification, we endorse the other changes in NIE's authority proposed in HR 5988. The restatement of NIE's mission to concentrate its resources on five priority areas of research and development adds a clarity of purpose which should improve understanding of and support for its work.

The five priority areas are of central importance to higher education, as well as to elementary and secondary education: improvement in student achievement in basic skills; overcoming of problems of finance, productivity, and management in educational institutions; greater opportunities for the disadvantaged, women, and students of limited English-speaking ability; preparation of youths and adults for entering and progressing in careers; and improvement in dissemination of the research results.

H.R. 5988 would also provide specific authority for the Director to award research fellowships in the Institute, and make desirable technical clarifications in the law with respect to the appointment of members of the National Council on Educational Research.

ORGANIZATIONAL ISSUES

The bill would make no change in the location and status of NIE within the organization of the Education Division. I should note, Mr. Chairman, that ACE

has already presented Congressional testimony recommending organizational changes for the Division to improve its leadership and support for education within the Executive branch. A copy of our recommendations is attached as an Appendix.

Our proposals would affect the status of the NIE Director and his relationship to the head of the Education Division. It would at the same time elevate the Director to Executive Level IV (Assistant Secretary) rank, and make him responsible for all research activities of the Division which would become a single, unified agency. Under present law the Director has an ambiguous status: he heads a quasi-independent agency, serves under the direction of the Assistant Secretary for Education, is authorized to conduct a broad program of education research, yet the responsibility for research on vocational and handicapped education are assigned to separate bureaus of another agency, the U.S. Office of Education.

While our recommendations would require technical changes in the law to reflect changed titles and reporting relationships, we would not propose any change in the role of the National Council on Educational Research. The NCER should continue to establish general policies for the Institute and provide an independent review of its activities. It also provides a measure of insulation from the political pressures of the bureaucracy, and an important link between NIE and its client, the education community.

The Subcommittee may also wish to consider another organizational change which has been suggested: that is, to establish several institutes within NIE based on the model of the National Institutes of Health. This approach could provide a more effective focus for NIE's internal operations, and encourage greater constituency support.

IMPORTANCE OF RESEARCH

In the remainder of our testimony, I would like to state some of the reasons why education research is so important, and why the future of NIE is so important to education.

It is generally assumed that education research has its greatest impact at the elementary and secondary levels. The academic tests formulated by research in the last decades of the century have come to play a central role in measuring and diagnosing student progress. Studies by Myrdal and Clark, which were key sources of the Supreme Court's 1954 *Brown v. Board of Education* decision, Coleman's work on equality of educational opportunity, Piaget's findings on early childhood development, and the development of science curricula by the National Science Foundation and elementary reading materials by NIE, are all examples of how research can have an impact on national policies for the support of education. The five priority areas for future NIE research, as stated in H.R. 5055, concisely summarize the enormous scope of the research needs ahead.

At the higher education level, however, research needs are no less difficult, and less well recognized by the scholarly community. There is double irony in the observation of the second Newman Task Force report on data and decisionmaking, that "There is perhaps no better testimony to the value which Americans place on higher education than the extent to which decisions about it are made on faith."

On the other hand, some recent instances may be cited where research in higher education has made a difference. Some significant work has been done as states have increased their data collecting activities to seek answers to many of the problems they face. California's first student-aid program for community college students, known as Extended Opportunity Programs and Services, was enacted by the State Legislature in 1970 after research findings demonstrated that free tuition did not provide unrestricted access, despite the conventional wisdom that California's zero-tuition community college system had made post-secondary education accessible to all high school graduates. A series of studies proved that the absence of tuition was not enough to assure that low-income students would enter a community college and complete a program. Accordingly, EOPS was designed to provide state funds for student financial aid, supportive services, and recruitment. Evaluation of the first year of the program suggests a continuation rate of 80 percent of students participating, in contrast to a rate of 50 percent for all other students.

Another example is the 1964 Knoell-Medsker study on transfer students which led to the development of guidelines by the American Council on Education for improving articulation between two-year and four-year institutions. The ACE guidelines brought about legislative changes in many states to aid the flow of students from two-year to four-year institutions.

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Among earlier examples of higher education research which helped shape federal policy-making were the work of President Truman's Commission on Higher Education, which emphasized the importance of community colleges and open-door concepts, and President Kennedy's Commission on Women, which initiated affirmative action programs.

The Higher Education Act of 1965 reflected research on skilled manpower needs, as well as findings that socioeconomic status was operating as a barrier to access to higher education. The Education Opportunity Grants established under HEA aimed at equalizing the postsecondary chances of high school graduates. More recent legislation to assure equal educational opportunities for women was stimulated by research showing sex discrimination in every aspect of academic life. Some notable court cases (*Parham v. Southwestern Bell*) were influenced by research (Theodor. Caplow and R. J. McQuell, *The Academic Market Place*) showing that a word-of-mouth recruitment policy conducted by a substantially all-white work force violated Title VII of the Civil Rights Act.

Thus the importance of research in influencing higher education policy has been demonstrated. Nevertheless, many of the issues and problems that trouble legislators and educators alike require further research before sound policies can be developed.

NEEDS FOR POSTSECONDARY RESEARCH

We do not have reliable data on the effectiveness of the resources devoted to postsecondary education. Without adequate measures of outcomes of education, we cannot agree on what the "desired results" should be. Even if we could, many educational outcomes cannot presently be quantified. We are still very ignorant about motivation, achievement, and other drives that differentiate human behavior.

Longitudinal surveys are needed to shed light on the results of postsecondary education over time. We need to know more about the different kinds of college education and their effects on students. No current data files can suggest the differential impact of institutions (public, private, small, large, high or low selectivity, residential v. commuter) on students.

We are still short of our goal of equal education opportunity, and we need to know more about how college-going decisions are made and carried out, and what factors now hinder equality of educational opportunity, including access and choice.

We need a system of disseminating research findings and their policy implications nationally. In some cases valuable findings with a potential for national impact have only been disseminated regionally. For instance, a recent study by the New York State Department of Education's Office of Higher and Professional Education demonstrated that disadvantaged students who had access to supportive services and financial assistance through the Higher Education Opportunity Programs in private institutions had success rates well above those students from similar backgrounds who attended colleges and universities in the New York system before this program was initiated. Clearly, without these programs, the less well-prepared students from low-income families would be denied equal opportunity for success. Yet these programs now are being cut back, which will force many of these students to borrow more heavily, and eventually attend part-time or drop out. The social cost of dropping out is great, but hard to quantify; the public cost is, perhaps, easier to calculate. Welfare expenditures attributable to inadequate education are currently estimated to be about $3 billion each year, and are expected to increase over time.

The major issues facing postsecondary education all require further research for the development of sound public policies:

Equal Opportunity.—Who enters postsecondary education now? What are the barriers to equal access? To choice PSE institutions? To successful completion of educational programs? What to do with dropouts?

Manpower Needs.—What is the impact of undergraduate enrollment pattern shifts on the future supply of college graduates? What do students know about the realities of the world of work? How can educational services and employment opportunities be linked in a more effective manner by public policy?

Recurrent Education.—What is the demand for recurrent education by adults? What are the barriers to students participation in recurrent education? What is the role of traditional and nontraditional institutions in providing recurrent education? What kinds of jobs are likely to require the retraining of persons over time? When is the need for such retraining likely to occur during a person's career?

Educational Diversity.—Here there are two sets of problems. One has to do with meeting the demands of new students: Who are the "new" students in postsecondary education? What is the new student demand for nontraditional and innovative forms of education? How can we credential life-experiences? The second set of problems deal with preserving institutional diversity: What is the impact of institutional financial distress on institutional diversity?

Some of these questions await the completion of research now underway at NIE. Among the projects in the field of postsecondary education are: (a) studies to trace the impact of undergraduate education such as the follow-up study of Project TALENT 30-year olds, and the study on nonintellective outcomes of undergraduate education; (b) studies on discrimination such as the two ongoing projects to develop models of sex role learning and sex discrimination; and (c) studies dealing with institutional management (e.g., effects of control and participation in the community college).

Nevertheless, NIE has not yet developed a systematic strategy or design for postsecondary research. The goal of equal educational opportunity demands a higher priority for postsecondary research, as well as a stronger, more adequately funded National Institute of Education.

APPENDIX.—ORGANIZATION OF THE EDUCATION DIVISION (GENERAL EDUCATION PROVISONS ACT)

A central factor in the continuing lack of leadership and support for education from the Executive Branch is the low status of the bureaus and programs of the Education Division in the Department of Health, Education and Welfare. While the 1972 Amendments established the office of Assistant Secretary for Education to direct the Education Division, the resulting reorganization actually diminished the authority of the Commissioner of Education by placing a new bureaucracy between the Commissioner and the Secretary. At the same time, responsibility for most education programs was retained in the office of the Commissioner, rendering the Assistant Secretary virtually powerless without program authority.

The Education Division should be headed by a single official, with higher rank and with clear authority for all of the programs of the Division. We recommend that this be accomplished by providing Executive Level III (Under Secretary) rank for the head of the Division, who would be designated Commissioner of Education to restore the historic significance of the title as the principal Federal education official.

We also recommend that Deputy Commissioners be provided at Executive Level IV (Assistant Secretary) rank in five functional areas: Elementary and Secondary Education, Postsecondary Education, Handicapped, Occupational/Adult, and Research. The Deputy Commissioner for Research would serve as Director of the National Institute of Education. In effect, these steps would abolish the Office of Education and reconstitute the Education Division as a single, unified agency with greater status in the HEW bureaucracy.

Mr. BRADEMAS. Let me observe at the outset, gentlemen, how very much personally I appreciate the support that you have indicated by your testimony and by the obviously careful preparation that has gone into your several statements. Each of you is known across the country as being an outstanding authority in education and I think we are fortunate to have you all here this morning.

My questions, or most of my questions, I think, are ones with respect to which each of you may want to say something. You need not do so unless you have something to say, though, but let me just start with an observation that was triggered in my mind by what Mr. Peterson said.

I was not surprised to see Mr. Peterson say that States ought to have more of the NIE money. I therefore peeked in the back of the book to read the testimony of the School Boards Association, not having had a chance to read it, and I was not surprised at all to see that the school boards think they are not getting enough money and they would like to have a third of the money go to local school boards.

Yesterday we had a spokesman from the Latin American citizenry saying that more money should go to Hispanics, and the women were distressed because not enough attention is being given to women and the representative from the American Vocational Association indicated that not enough money is being given to vocational educational research.

So I would simply, at the outset, make an observation, which I trust you will appreciate, that I think each of these criticisms or recommendations has to stand on the merits but that I hope, insofar as the politics of support for the NIE is concerned, given the funding has been modest, as indeed each of you has said in your testimony, that there has to be at least a nub of support for the NIE, as it were, before quite legitimate groups and interests each move in to say that "I want to be sure that we get enough for us."

I would make one other observation, which I hope will not be misunderstood. That is that this is not an institute that is aimed solely at supporting research for grade schools and high schools. This is an institute which is to support research that runs from early childhood—indeed to perhaps before birth—throughout all of life and is to touch upon learning and teaching in both formal institutions of education and nonformal learning situations; so that at least that is the way in which these sponsors of the legislation conceived it, to try to represent it and explain it.

This is, of course, in no way to suggest that we must not seek to improve the fundamental institutions of learning in our society, which are our schools, colleges, and universities.

Let me, with that off of my chest, put some specific questions to you. One of the points that one or two of you have made is this: It has to do with the capacity of consumers of educational research to utilize the results of research. I think, for example, Mr. Peterson, you said that the States had indicated a real interest in educational research. Yet I also heard, I think, somebody else point out that State or local school systems are hard pressed financially just to provide services, that they don't put aside much in the way of resources for research and development and long-range planning.

Then there is, of course, the additional question to which some of you alluded, which is that there seems to be a shortage of trained researchers in the field of education.

So, I wonder—and I have raised this question against the background of the suggestion of Roger Levien the other day—that we should seek to encourage some in-house research capacity within the consumer units. Could you comment on that range of questions, any of you?

Mr. CROSBY. Congressman, I would like to try. Recently a team of us undertook a look at the school systems of the city of Chicago and they were quite dissatisfied with the productivity of that school system. In their list of six recommendations, they included the idea that the Chicago school system should have a very strong unit devoted to research and evaluation so they could have quality-control indicators to correct the mechanisms of instruction and reallocate resources if they were not doing a good job in one area or another.

It is interesting that in the past 6 months one of the last acts of the general superintendent, Superintendent Redmond, was to set up such an office and to recruit for it a professor of education research and evaluation from Northwestern University because it is important.

At the State level I have a research planning and evaluation department and most of it is financed at the moment by Federal funds out of title V to strengthen State education departments because 10 years ago very few States had that capacity.

Now, as you know, title V is on the wane, being blended and consolidated with other Federal programs, and there is the question of how we will compete in terms of library books and other demands on title IV.

I want to applaud the work of the leaders of NIE during the past 10 or 12 months under the Acting Director Elliott and then under Director Hodgkinson in terms of the increased interest in the States and in intermediate units for just the purposes you mentioned—the dissemination, the consumer, or how does a consumer find out what has been generated? Great ideas are being developed just one or two States away. Yet, how do you find out?

The ERIC system is a good way but what other mechanisms are needed and how do we take an active role in promoting them and the dissemination grants which 10 States received recently for general purpose capacity building in terms of getting research results and products to the school systems and to those outside of the schools who are involved in education? That is an important first step.

I for one am speaking now as a chief State school officer and I am impressed by the fact that NIE, perhaps a little late but not too late, is recognizing the key role of the States, the fact that we do come in, and the attention of the local school board, that we have a constant flow of mail going out to local superintendents; and working with these teaching groups could expand it more. I think the need to develop that capacity is extremely important.

NIE has begun to play a role but they are not putting enough money in because they don't have enough for any of their activities because of what has happened to the appropriation side of things.

Mr. HALL. Will you yield?

Mr. BRADEMAS. Yes.

Mr. HALL. I would like to welcome Dr. Cronin, the State superintendent of Illinois; the great State of Illinois. As I say, he is doing a great job, and I want to welcome you to this Capitol and to this committee.

Mr. CRONIN. Thank you.

Mr. BRADEMAS. You are fortunate, Mr. Cronin; you have an Illinois educator on this Education Committee so that your needs are attended to.

Just following what you said, I wonder if I might turn to Mr. Peterson and ask this question: How can we encourage State departments of education and chief State school officers? And I must say I interrupt myself here to say how impressed I have been to see, even within the last few years, the very sharp increase in interest on the part of chief State school officers in educational research. That I find to be very encouraging.

I can go further and say, having served on this committee 17 years, I have been much impressed by the very sharp increase during that period of the quality of chief State school officers. I regard that as one of the brightest signs on the horizon.

In any event, how can State departments of education be encouraged to invest more State moneys in educational research and devel-

opment and dissemination, that amalgam of activities which are the concern here today?

Would a matching grant proposition be one way to go about it—that is to say, the Federal Government would put up some money wherever a State voted money for research? What can we do to move further along the lines that Commissioner Cronin spoke of?

Mr. PETERSON. To answer that and return to a previous question you asked, we have not maintained the theory that State education agencies are in line to do very basic research on learing. If it is in accord with the committee's thinking, and as suggested by Mr. Levien, perhaps the percentage of research funds provided for in-house use of the Institute should be reviewed. An expansion in that area perhaps could increase the prestige of the Institute, if it could attract top-level scholars who could develop theories or programs relevant to current major problems in schools.

With regard to the States, certainly a few State school officers would be willing to work with the committee to discuss concepts like matching grants. We feel that another way to encourage the States to participate is an emphasis on development of programs that have already been cooperatively put together by the Federal Government and the States.

For example, much has been done in ESEA title III and has not been carefully evaluated by the Federal Government in cooperation with States, nor has it been carefully put into a networking system to implement these new programs.

The Institute is moving, in a couple of the programs I mentioned, to help the States examine what is already out there; what teachers and administrators have developed in the States should be made available to all States and localities. I think this is the most promising arrangement for cooperation between the Federal Government and the States.

Mr. BRADEMAS. Mr. Krathwohl.

Mr. KRATHWOHL. Mr. Chairman, if I could address your earlier question also, I think it is instructive, if you can, to crawl back into our skins back in the forties and fifties, when educational television was just coming on the scene. At that point there were a lot of questions about "Could we teach with educational television?"

One of the interesting things was to watch what happened. Area after area had to prove to themselves by doing an experiment in their own schools, teaching of mathematics, teaching of engineering; each of the areas had to prove it over and over again to themselves, "Yes, you could teach it by television," and "These were the strengths and weaknesses" despite the fact there was pretty good education research which said, "Yes, you can teach these things."

In a real sense, we should not have been surprised that each one had to do it for itself, which goes back to the heart of your question, which is: the extent that people pick up things that are said by others to be true and use them.

We find over and over again people have to prove these, at least to a certain extent, to themselves—agriculture, for instance, and the agricultural extension agent learned this many years back and they began to place demonstration farms where other farmers could see it and see that it does work.

We have not begun to do it in education and we have just barely begun in multiunit schools. Even there, there are many parts of the country that are not touched, as the man indicates.

We just don't have the funds in NIE to do this. It is extremely expensive. All of the funds that NIE now has would be a drop in the bucket toward that kind of network.

But that is the kind of direction we ought to go. It seems to me your question is very important. It is a goal we ought to strive for. We ought to recognize the realities of trying to get there and moving there as quickly as possible.

Mr. BRADEMAS. I think you make a telling point, if I understand you correctly, Mr. Krathwohl, when you suggest that consumers have to go through some of these processes themselves in order to really feel at home with whatever it is that is being produced.

I remember—and maybe my memory is bad—what I always thought was a great definition of education by Tertigar, and I think he said: Education is the course that one has to run through in order to catch up with oneself, and he who will not run through this course is little advantaged by the fact that he was born into the most advanced age. So you have to do your homework and suffer the pain and anguish.

Now let me ask this question of Mr. Egbert: We have all of your colleges of education out across the country, which, in days gone by, used to be the despair of many. My mother is one who studied at one of those. Now, I know that some persons—and I have cited Dean Cohen, your colleague, the other day; and I believe you have been interested in this also—have taken the point of view that rather than saying, "Well, there is no hope for reform of education from the schools of education," "The best thing to do is to work with this very powerful system and see what contributions they can make by more effectively utilizing research and perhaps in some respects getting more deeply involved in research themselves so that they can make a more effective contribution toward improving education, particularly elementary and secondary education."

Now will you comment on how you see the role of colleges of education?

Mr. EGBERT. I should like to speak briefly to that in relationship to the earlier questions which you posed, Congressman, if I may. It seems to me that we in colleges of education have a particular interest not only in the development of our own institutions but also in the related development of the resources of related institutions.

The institution building that has been referred to as being important in State departments of education and in local school districts on a research and development dimension is very important to us. We have experience, for example, that as our own State department and our own local school districts have developed capacity themselves to conduct research and development, their demands on us have increased.

In other words, at a time when these institutions did not have a great deal of capacity themselves, they were less interested in what we could do for them in research and education. As they have increased in capacity, they now come to us for help, both in conducting the more basic research and also in working with them in the solution of immediate problems.

Institution building is important for us with local education agencies and with State departments. It is also important in colleges of education and, as we have the capacity to do research, to perform developmental activities, then we are able to work more effectively with these other institutions.

I would urge, as Congress gives attention to building the capacity of the local education agencies and the State departments, they also give attention to building our capacity, not by grants to education researchers but of the capacity of the institution to perform.

Mr. BRADEMAS. Let me put three other quick questions before you and then we will go to Mr. Hall.

How can we, beyond the proposal for fellowships in the bill, encourage more young men and women to make careers as educational researchers?

Mr. PETERSON. If I might comment on that, Mr. Chairman, if there is some way in the committee's report language or in discussions in oversight with the Institute, it might be possible to specify to contractors that they appoint parties for liaison, for example, and take, for example, a piece of work by a lab and center, as part of the contractual arrangements liaison persons could be appointed by the lab and center and also the local school district most directly related to their work or State education agency to follow closely their work progress and to make suggestions from the local and State level and thereby interest more local and State education agency staff in such research and development work. It would have obvious two-way feedback and would clearly attract the interest of working educators in this area.

Mr. BRADEMAS. I will just raise another question. It would be possible and I now turn to the question of allocation of resources of NIE because each of you and others have indicated the pattern of distribution might be improved in one way or another—I find it a little difficult to get clear in my own mind what the right categorization ought to be because, when you divide whatever funds are made available to NIE among levels of education—early childhood and elementary and secondary and post-secondary—or kinds of institutions, such as schools, State departments of education, labs and centers, and colleges and universities, or kinds of activities, such as basic research, applied research and dissemination, or subjects of research, such as early childhood, elementary and secondary, lifelong learning what, then, do you have to give us in this respect?

That is because, when each of you and other witnesses make suggestions for changing the money flow, some usually are talking, or each suggestion is made from the perspective of whatever interest that witness represents. Sometimes you are asking us to mix apples and pears and oranges. It has been suggested by some that at least we establish institutes within NIE, and I think Mr. Saunders made some such suggestion. Have you any comments on this range of questions that I am putting to you?

Mr. CRONIN. Given the uncertainty as to what the right answer is, I would urge the Congress not to write in very many specifications. Don't say that State agencies ought to have 10 or 20 percent and don't say that labs should have a certain dollar limit. Leave these decisions to the policy council and leave these to the staff of NIE to initiate their initiatives as they see the policy changing over the

course of 3 or 4 or 5 years. Give the research freedom to place research dollars where they think they see payoffs, which is the most statesmanlike policy of the Congress. Frankly, although it is not in our self-interest as chiefs or deans or State superintendents, it is the right thing to do.

Mr. BRADEMAS. Mr. Saunders.

Mr. SAUNDERS. I would just like to endorse that statement, Mr. Chairman. When the higher education associations went before the Appropriations Committees to ask for more funding for NIE, we did not make the case that we had a special interest in higher education and we thought the higher education sector needed more funding, we simply made a broad case for a well-supported National Institute of Education.

I would like to relate back to your previous question about "encouraging young researchers to go into this field." I think that may, in a large sense, be self-correcting as NIE establishes itself with a national reputation. I think you have the example of the 1960's, when there were few people working in the field of economics of education.

As the critical importance of those issues came to the fore—the issues of school finance that were focused on by the courts—the needs became more apparent, and this attracted a lot more able young scholars into that field.

Just so, I think the more effective that NIE becomes on the national level, the better a job is done of identifying the importance of these research issues and why it is important to work on them. That will be a self-correcting mechanism to the whole question of getting more people interested.

Mr. EGGERT. I would like to endorse what Dr. Cronin and Mr. Saunders has said, that is, that we would not want to see a lot of earmarking in Congress for amounts to various portions of the research agenda. I should also like to endorse what Mr. Saunders just said about the self-correcting nature of the preparation of people that go into the field of educational research.

A few years ago when educational research was receiving more money, scores of extremely able young people entered the field.

I think many of those folks have begun to be discouraged by a shortage of funds and if we can't have more money there is no question in my mind that we will have many more extremely young people making careers in educational research.

Mr. BRADEMAS. Is there any disagreement among you on the earlier proposition to which Mr. Cronin and others have spoken that we should not try in the legislation, to earmark funds or set aside percentages for differing institutions of education in the country, that is to say, schools, or States or colleges or universities or think tanks or post-secondary education or early childhood or lifelong learning?

Is there any disagreement with that proposition?

Mr. Krathwohl.

Mr. KRATHWOHL. Not disagreement per se. Let me say I think over a time I am hopeful there will be subdivisions of NIE around specific problems. It seems to me the notion of having separate institutes that relate to specific problems is an organizational pattern that is an extremely attractive one when there are more funds that can be divided among those institutes.

I think it would be self-defeating at this point to do it with $70 million. That is not enough in any one of the pots at this point.

The point you make about trying to divide those funds among all of these various problems is part of what NIE is faced with. We need more funds in educational research and then well more toward a division into institutes where they can have a much closer relationship with those working with that problem or concerned with that problem. I think then you will feel acceleration of interest and acceleration of dissemination and a lot of the things we are working for now.

Mr. BRADEMAS. Mr. Peterson.

Mr. PETERSON. I have no quarrel about not earmarking for specific performers, but I want to reiterate that we wish the committee would write a more specific mandate in the educational equity area.

Equality of opportunity, we feel, is the overriding issue in education in the United States today. We would like to see emphasis expanded in that area.

Mr. CRONIN. I would second it and I was talking to Director Hodgkinson and he said even though bilingual education ought to be a priority, we really desperately need research in that area, especially in the next 3 to 5 years. There are not enough funds in the equity area, but I think those decisions about allocations ought to be left to the staff allowing flexibility. The way things are going, something new like bilingual education will come up and none of us will be able to anticipate it today and the staff and councils should have that flexibility.

I think the Congress ought to reinforce our own tendencies which occasionally break down but are there, that States and teacher education institutions and outside research groups, various organizations, teacher centers, working together, and establish networks of collaboration. That is the way things have worked so effectively in both agriculture and health science and as both general admonitions and specific incentives in various pieces of legislation remain a good idea.

Mr. BRADEMAS. Let me say before I call on Mr. Lehman I am encouraged by you saying that with respect to the substance of the enterprise and I hope that there can be developed a similar pattern of cooperation with respect to the politics of generating support for the National Institute of Education.

Thank you very much.

Mr. Lehman.

Mr. LEHMAN. Thank you, Mr. Chairman.

The thing that concerns me about educational research and the National Institute of Education, is maybe the reason you are here and that is the public. I guess the public, knowledge now that the test scores on the college boards have dropped, I think, around 50 or 60 points in the last 10 years. Roughly, since we started adding Federal money to the education programs, and specifically in the last year the average scores dropped over 10 points in the verbal and written and arithmetic tests.

I think we better find out what is happening. Nobody seems to know, they have been dropping for 10 years, and I have yet to see anybody coming up with anything but a guess, whether it is TV or teacher organizations or whether it is race, or whether it is social changes or whether it is the new permissiveness or the old permissiveness, or maybe the tests are getting more difficult. But if we are going

to be dealing with a problem of education and we are going to do some educational research, I think we had better find out first why our kids are graduating and, at least according to testing service people, they are getting out of high school dumber and dumber.

I think that is one thing I am very concerned with because if we were manufacturing automobiles and they were getting lower and lower gas mileage. I think you would do something about it. That is what we have had to do in some other areas.

So I would like to see whatever you do in recommendations for the National Institute of Education, and any cooperation you may make that you first find out what that organization can do to find out why there has been a consistent trend in dropping of the test scores.

I might add this is very confusing, because they even put a random sample of 10-year-old tests along with the new tests, and they do just as badly, or they do just as badly on the old tests as they do on the new tests, and that it is not necessarily a question of more people taking the tests than they used to because the top 10 percent are falling off just as fast as the middle percentile.

Even estimating the fact that we are having a baby boom now in our high schools and the second, third, or the last child of big families are dumber than the small families that used to graduate, and that the third and fourth kids that are now graduating from high schools are genetically more stupid than the first born or the small family kids.

So I think we really have some problems that we must deal with and I think we better find out why our kids are getting dumber. If they are getting dumber, at least we are not teaching them as well.

Either the schools are doing a worse job or the kids are getting dumber, one or the other. I don't know if you would consider this one of your top priorities. I noticed one of you smiling, but one of the estimates they gave is the fact that the teacher organization militancy, which they address themselves to, is listed as one of the reasons. Nobody knows what is causing this and I think we had better try to find out.

Would you like to respond to my concerns?

Mr. PETERSON. The chief State school officers are perfectly willing to admit we have not been critical enough of our own efforts in the past, and one of the best functions of the Institute is to help us with all kinds of evaluation—of students' achievement including longitudinal evaluation, so we can be more analytical. The Institute can help us learn which programs are not productive in schools and can emphasize programs which are productive. I mentioned the ability of the Institute to help us evaluate programs in the whole area of title 1, in which we invested billions. We need assistance in careful evaluation, emphasizing the programs which will work.

Mr. LEHMAN. You could say that Federal programs are the reason for it. Only since Federal programs have come in are the test scores getting lower and lower. You could even rationalize to that effect, that it is the cause of the declining scores.

Mr. KRATHWOHL. You are familiar with some studies, I am not, and I appreciate your bringing them to my attention. Clearly, I think NIE is needed to study those kinds of questions, there is no question about that. I think, however, that many instances that we do ourselves a disservice in some of these comparisons.

Some of the international studies, for instance, show the United States as being much poorer than some of the schools in other countries. But when you look at the selectivity pattern of those schools versus ours, then you find what we're doing is carrying along a great mass of people while they are not.

Mr. LEHMAN. Could I interrupt you? The top 10 percent, the elite group, are getting dumber just as fast as the mass.

Mr. KRATHWOHL. I understand what you say, you know, I would like to take a look at the study, I am not familiar.

Mr. LEHMAN. Maybe it is air pollution.

Mr. KRATHWOHL. I doubt it.

Congressman, as a father of 7 children, I am going to go back and check on Nos. 5, 6 and 7. I have been focusing on the problem of putting a stop to the declining enrollments, but now you suggest new issues for me to look into.

Mr. LEHMAN. Believe me, it was not originated with me, but it was one of the possible causes suggested by some of the genetics experts.

Mr. CRONIN. There was a brandnew panel that had been created by Sid Marland in his capacity as head of one of the major testing services to look into the phenomena of declining scores on the senior scholastic aptitude tests. The Council for Basic Education recently unearthed some interesting statistics to the effect that the junior year or 11th grade test scores over the last 15 years have held fairly constant, but it is the senior year scores that have dropped. One of the reasons is more and more colleges have admitted bright students at the end of the junior year in an early admissions program. It may well be that the cream of the crop are not taking, in the senior year scholastic aptitude tests. That may be a very, very simple answer.

Mr. LEHMAN. That is one reason I had not heard of, but I can see how early enrollment could be a factor in these kinds of grade scores. I didn't want to bring it out except by indicating the necessity of NIE's existence and its direction perhaps in this way so that we could come up with some of the things we need in the way of information.

Mr. CRONIN. I am quite in agreement. It should not take 10 years to find out answers like that.

Mr. BRADEMAS. The Chair would just like to observe we are pleased to see in the room the distinguished former Secretary of Health, Education and Welfare, Wilbur Cohen, now the dean of the College of Education at the University of Michigan, and we don't normally do this, but in your case we will make an exception, Mr. Secretary, if you would like to come and join your colleagues at the witness table you may have some of these questions inflicted on you.

Mr. COHEN. I stand four-square with my colleagues.

Mr. BRADEMAS. Mr. Hall of Illinois.

Mr. HALL. Thank you, Mr. Chairman.

You, Mr. Lehman, have asked, it seems like, all of the good questions. I would like to preface what I might say with the statement that I don't blame the schools or educators for the particular dilemma we find ourselves in at this point. I guess we are overly concerned in Congress because if we don't find somebody to blame, we feel they will blame Congress.

Be that as it may, I think the study Mr. Lehman was referring to was the one that indicated there were what, 23 million functional illiterates and 1 out of 3 people supposedly do not function very well.

I guess one of the questions I would want to ask is this. Has the new math really failed, and maybe to draw something of an analogy of his mentioning of the cars today getting less and less gas mileage and it might be because we are demanding too many options and maybe we have gone overboard on frills in education, which is what I am trying to say. I wonder if this would speak to the need, and I would address any or all of you, that this might not speak to the need of a Department of Education in this country with Cabinet status, or do you gentlemen have any feeling in this regard?

Mr. SAUNDERS. Congressman, I know the proposal for a separate Department of Education has much appeal and I, in my testimony this morning, made some recommendations for what we believe to be a logical step toward that objective.

At the same time, I am concerned about the context of your questions, because the last thing I would look to for the salvation of our educational problems is the Federal Government. I would certainly hope that whatever we do, as far as reorganizing the structure of the educational bureaucracy in the Federal Government, we would not make the assumption that there are some people in Washington that have all of the answers to all of our educational questions.

I think a Ministry of Education is a concept which is foreign to this country, and the strength and vitality of our system is essentially dependent on the fact that is it not a centrally run system.

So, while there are many, many reasons for arguing that education needs greater attention within the executive branch of the Government and that organizational changes are necessary to provide that focus of attention, I certainly would not try to argue that such organizational changes would bring about the solution of our educational problems, or that people should look to Washington for all wisdom.

Mr. LEHMAN. No; I didn't mean to imply that the answers to problems of education in a national sense rested with the Federal Government, not at all.

It is my feeling that education is too important a business to be wrapped up with health, education, and welfare all combined and we might be better served if we could, if nothing else, coordinate federally funded programs. They are overlapping in all directions and I think we are wasting money and it is in that context I meant it.

Mr. KANTROWITZ. If I might comment on your question, sir, I would like to suggest that this is the right direction to go. I would not argue that all of the answers should come from Washington either, but I do think that combining education with health and with welfare, where both of these are such important priorities within our society, gives education a kind of a third priority in this group. It does not permit it to compete then with things like transportation, housing, and all of the various other departments that are individually represented. I think for education to be a department and be judged in its priorities with all of these things, rather than being put "third" by HEW, would be the appropriate thing to do.

I would like to see us move toward a Department of Education as rapidly as possible.

It seems to me the proposal that ACE has suggested, namely, of moving the Office of Education up a step in the structure is a move

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toward a department and one that might well be considered at this point in time.

If I could address myself to Mr. Lehman's question, your earlier lead to this question, that one of the problems it strikes me that has developed in using the scholastic aptitude test score as a measure of what is happening in the schools, is that it was not designed ever for that purpose. Yet, people look at the drop in it and say, "Hey, the schools are terrible."

What we need is a set of educational indicators, it seems to me, which are indicative of what is going on. We recently, just last Saturday, sponsored an educational testing service in a conference in New York at a conference of educators, which we can have, on balance of payments, indicators of what reflects what is going on in the economy.

We could develop indicators like that in education and then would have better answers to what Mr. Lehman asked and what you asked. I think we have many of the parts that are needed to put that together, as was reflected in proceedings at that conference. What we need is some money and work toward it and I would like to encourage it.

Mr. HALL. Excuse me, Dr. Cronin, but I would like to emphasize I am one of the individuals in Congress that is a little sick and tired of hearing the schools and educators blamed for all of the ills of society. I don't buy it at all.

I am reminded of a meeting I attended with some administrators talking on the dropout problem. I will never forget the statement that a superintendent from a school in New York made. He said, "Well, we are all educators talking about the same problem, come on in and close the doors."

He said, "Ladies and gentlemen, the biggest problems with dropouts in this country is that drop-outs marry drop-outs and we get little drop-outs and I wonder sometimes where this cultural life thing begins and stops." I guess one of the reasons I asked "Has modern math really failed" is because I remember the trauma in the school system I happened to be in at the time of the teachers being confronted with new math. They just could see the end of the world, as far as they were concerned.

I can see now we are having second thoughts even on that, so I said it somewhat "tongue in cheek," but go ahead.

Mr. CRONIN. Mr. Chairman and Mr. Hall, I just wanted to comment on the Cabinet status idea or the proposals that go toward that direction which the Council of Education is proposing.

From 1972 until January of this year, I had the privilege of holding the rank of Secretary of Education in Massachusetts, one of our States that has adopted that way of doing it.

What it does for education is raise it to where you can talk as an equal to your counterparts in transportation, in the Budget Bureau, and this is terribly important at both State and Federal levels to have enough viability and enough rank and enough staff to really jostle for increasingly scarce funds with one's counterparts.

I think this is a proposal which the Congress should consider very, very carefully. As I talked to some of the staff members in the U.S. Office of Education, for example, and I had not talked as much with NIE people, but it is very clear they are five and six echelons below where some of the critical decisions are made about the resources.

So I think that alone is one reason for giving this proposal very serious consideration.

Mr. HALL. Thank you. Thank you very much, gentlemen.

Mr. Chairman, no further questions.

Mr. BRADEMAS. Mr. Cornell of Wisconsin.

Mr. CORNELL. Thank you, Mr. Chairman.

I regret I was late and didn't hear the gentlemen's statements, but I would like to make an observation in reference to Mr. Lehman's concern and to what Mr. Hall said, and of course, I don't want to blame the educators, particularly not the teachers, for this situation, after 34 years of teaching, because I would be very disinclined to do that.

It seems to me on the college level, just to make an observation, that in the 27 years that I taught, I found that more and more students were not interested in learning. They were interested in a degree. And what is responsible for that I don't know.

Certainly it was not the lack of infectious enthusiasm on the part of the teacher.

But seriously, I would like to ask you gentlemen in regard to the role of the NIE and whether it can be achieving its objective and purpose with the budget that has been proposed.

Now, as I understand it, most of the money goes into the research and development centers and laboratories, and I seriously question whether there is sufficient funding, for example, for dissemination of the material that is developed in these centers, to make it really worth while.

Also, as I understand it, most of the trained people are absorbed by these centers, and as a consequence, our State educational agencies and local agencies do not have people of this caliber.

It seems to me that is an area that the NIE ought to get involved in to a greater extent. I just can't see how it can be done, though, on, let us say, $80 million.

Do any of you gentlemen want to comment on that?

Mr. PETERSON. Mr. Cornell, the R. & D. Center, as I understand it, in your own State, in Madison, has done one of the best jobs in disseminating a program which was developed there, an individualized learning program, and in the testimony of the chief State school officers this morning, we suggested the committee give the attention to directing the Institute to make this kind of distribution, this implementation process, an integral part of each contractual arrangement, whether it deals with a lab, or a research and development center, through the educational system.

In time of shortage of funds and personnel, it seems to us to make sense to use an implementation system already in place—that is, the teachers and administrators in the local and State school system—and we feel that the Institute is moving in this direction, and I think the example I gave is one instance. But I believe you are absolutely correct in the relationship that you draw between scarce resources and the need for implementation channels.

Mr. CORNELL. Well, in regard to the Wisconsin case, our research center, of course, has these contacts in various States, but it is certainly not nationwide to start with. We had a gentleman yesterday, Mr. Rossmiller, indicating the contacts that they had in various States, but it seems to me if we are spending money on these things, we ought

to make sure whatever comes out of the centers should be distributed nationwide.

I simply don't think there is sufficient funding to do that sort of thing. That is just an observation.

Mr. EGBERT. Those seated here would agree with you, Mr. Congressman. We remember the days before the passage of the Cooperative Research Act, when there was no Federal research and development money in education. We remember the progress that began taking place with the passage of that act. We remember the substantially greater progress that occurred in educational research and development as more funds and more guidance became available, and as additional persons were trained and we watched with a good deal of distress the decrease in funding for the National Institute of Education over the last several years. Each one of us here would like to see substantially more money in educational research and development. We concur fully the $80 million in the bill is entirely inadequate to provide for research and development, let alone dissemination, which, as you indicate, is far more expensive than research and development.

We would like to see a substantial expansion of the money.

Mr. SAUNDERS. I would add that the current level of appropriation at $70 million for NIE does not begin to approach the minimal realistic levels derived by the administration for purposes of its own planning.

I served in the Education Division of HEW for the first 3 years of NIE's establishment, and my concern was that NIE was constantly spending its time planning on different budget levels than the one they eventually got.

The administration would ask for $120 or $140 million, and a program would be carefully planned at that level, but by the time the plan was finished, it had to be cut back because of actions taken in the Appropriations Subcommittee. By the time the appropriations bill came to the floor of the House, NIE would be planning at a $10 or $15 million lower level, and by the time the bill got to the Senate, they were planning it $20 or $30 million below that. So the uncertainty of funding has been a major factor over the last few years, certainly the current level is far below the minimal levels initially planned within the administration for effective operation of the agency.

Mr. CORNELL. I gather also then you would favor the present legislation covering a longer period of time, a longer period of time as far as NIE—as far as funding is concerned?

Mr. SAUNDERS. Yes; we would favor a longer period of time than the 3 years provided in the bill. We would also, as my testimony pointed out, oppose the flat $80 million level of funding recommended in the bill.

Mr. CORNELL. You see, my concern is, and let us say we are still in a trial period at NIE, there is not sufficient funding to demonstrate what it is doing, and obviously it will not be successful, and people will be throwing brickbats at it and such, so you have to give it a chance, so funding is absolutely essential, I would agree.

Mr. KRATHWOHL. If I may comment, your notion that the funds are inadequate for dissemination is not only correct, but it is correct in very, very large letters. The whole $70 million that is now allocated to the NIE could easily be spent on dissemination and not really make the kind of impact that we need in education.

I think it is clear that we need to know more about dissemination and I am hopeful NIE will spend a portion of that on research dissemination so we can learn how to do it better.

I would like to suggest therefore maybe it might be useful to consider a reopener clause of some kind in 2 or 3 years, assuming we authorize it, say, for 5 years or longer, a reopener clause on whatever limit is authorized for NIE. Let's take a look at this point and whatever we are doing in dissemination and what we now know about dissemination and see if maybe it is not time to really authorize the kind of limits that ought to be authorized for dissemination that will really do the kind of job that needs to be done.

I think maybe it would move us in the direction we need to go and be more realistic about the kinds of funds we need for dissemination as well as research.

Mr. CORNELL. One of the proposals we had yesterday for dissemination was an authorization in the first year of $20 million and the next year it would be $30 million and the third year it would be $40 million. But, obviously, that is kind of impractical when you talk in terms of $70 million or $80 million in the total budget.

Thank you very much, Mr. Chairman.

Mr. BRADEMAS. Mr. Jeffords of Vermont.

Mr. JEFFORDS. I would like to ask the panel this question. A great deal of research and development and dissemination still exists in the Office of Education. I would like to know whether you feel this should be divided between the two agencies or should NIE assume the research and development functions with respect to the handicapped and vocational education?

Mr. SAUNDERS. Mr. Jeffords, I implied, if I didn't explicitly state that in my testimony under our proposals for reorganization, and we note that it is an anomalous situation that currently exists that NIE or the Director of NIE is supposed to be responsible for educational research and yet major programs for research in the fields of vocational education and handicapped education are assigned to separate bureaus of another agency.

My feeling is that the total research effort in the field of education should be the clear responsibility of the Director of NIE.

Mr. CRONIN. As a spokesman for the American Educational Association, Mr. Congressman, and a chief State school officer who has some of that research money coming in now for the handicapped and vocational students programs, what I would suggest to the committee is this: Two years ago you authorized the research money in USOE for those other programs. I would think that what we need to do in the next few years is to get NIE funded properly and doing the things that are already assigned to them. Then the next time you review the rest of the elementary and secondary education budgets, which should, I think, be in about 2 years, then begin to transfer the other research programs in those specific areas into NIE. But NIE needs a little more time to really get established for all of the rest of education including higher education research.

Mr. PETERSON. Mr. Jeffords, this is most relevant to the chairman's comment with regard to a political base of support for the institute. We do face the question of inadequacy of program funds in the very areas to which you refer. I think we would look with some trepidation

on putting existing research portions of these programs in the NIE budget. We would prefer that, if they ever become part of the NIE, they continue as part of the authorization for the regular program.

Mr. JEFFORDS. Thank you, Mr. Saunders. You proposed a rather major revision of the education division of HEW and it appears from the appendix of your statement that your proposal would result in a substantial downgrading of NIE by making the Director equivalent to a Deputy Commissioner in OE and giving him the same rank. Yet, today the Director is one rank higher. I wonder if my understanding of your proposal is correct?

Mr. SAUNDERS. Actually, Congressman, it would elevate the status of the Director of NIE to that of Assistant Secretary. So, under our proposal, the official responsibility for the entire education division would be at Under Secretary rank, with a title of Commissioner of Education and he would have five deputies at the Assistant Secretary rank and they would be Deputy Commissioners and the Deputy Commissioner for Research would be Director of NIE. That is actually upgrading of their status.

Mr. JEFFORDS. Do you not, in effect, though, raise the others two steps in rank and sort of leave the NIE with only a one-step increase when you revise your system?

Mr. SAUNDERS. No. I would say the whole Division structure would go up one level in effect. The head of the Division would go to the Under Secretary level from the current Assistant Secretary level position.

Mr. JEFFORDS. Thank you.

Mr. BRADEMAS. I might just ask, before we conclude, under your proposal, Mr. Saunders, what would happen to the fund for post-secondary education.

Mr. SAUNDERS. Mr. Chairman, under the specific proposals we made, the fund would go under the Deputy for Postsecondary Education. I think that is a question that you can argue—as NIE establishes itself I think you get a better argument for folding the activities of the fund into NIE, but I think for the time being I would put it under the Deputy for Postsecondary Education.

Mr. BRADEMAS. I want to thank all of you again for your most valuable testimony and we are very grateful to you for having come, gentlemen.

Now, our next panel is composed of Dave Darland, associate director of instruction and professional development of the National Education Association, and Eugenia Kemble, special assistant to the president for research, American Federation of Teachers, accompanied by Gregory Humphrey, codirector for Federal relations of AFT, and Gus Steinhilber, assistant executive director for Federal relations of the National School Boards Association, and Walter G. Davis, director of education of the AFL–CIO.

Gentlemen, you can see as usual we find ourselves pressed for time, so if you could emulate your predecessors and each of you try to summarize your major recommendations, we can put questions to you then.

We are pleased to have you with us.

STATEMENT OF DAVE DARLAND, ASSOCIATE DIRECTOR OF INSTRUCTION AND PROFESSIONAL DEVELOPMENT, NATIONAL EDUCATION ASSOCIATION, WASHINGTON, D.C.; EUGENIA KEMBLE, SPECIAL ASSISTANT TO THE PRESIDENT FOR RESEARCH, AMERICAN FEDERATION OF TEACHERS, WASHINGTON, D.C.; ACCOMPANIED BY GREGORY HUMPHREY, CODIRECTOR FOR FEDERAL RELATIONS, AMERICAN FEDERATION OF TEACHERS; AUGUST STEINHILBER, ASSISTANT EXECUTIVE DIRECTOR FOR FEDERAL RELATIONS, NATIONAL SCHOOL BOARDS ASSOCIATION, WASHINGTON, D.C.; WALTER G. DAVIS, DIRECTOR OF EDUCATION, AFL–CIO

Mr. DARLAND. I am Dave Darland, associate director of instruction and professional development for the National Education Association.

We are particularly delighted to be here. We have a great interest in these hearings and appreciate the opportunity to present our views.

The NEA does support reauthorization appropriations for the National Institute of Education. To do so constitutes a considerable act of faith. Candidly, we are placing our hopes upon future, not necessarily past, performance of the Institute. However, we perceive that the Director and staff are acutely aware of and sensitive to our concerns. Our expectations have been rekindled also by the attention that has been given to the recommendations of the Campbell panel, especially their call for planning which would overcome the assumption that schools are merely the recipients of the fruits of R. & D.

The importance of an adequate system of research and development can hardly be overstated. We believe that it is imperative for the Federal Government to assume responsibility for the continuous support and extension of our national capacity for high quality and effective research development, knowledge utilization, and problem solving in the area of education.

Teachers are well situated to understand the tentative nature of knowledge. Indeed, they know that to even maintain the status quo in education requires research and development. Accordingly, we recognize the importance of research and development if we are to adequately meet our educational needs.

However, recognition that knowledge derived exclusively from experience is not sufficient does not mean that the practical problems and conventional wisdom of teachers should be ignored. Indeed, we feel strongly that teaching and learning needs as identified by classroom teachers should be the generic reference for a major dimension of educational research. Knowledge of on-the-job needs of teachers as perceived by them is essential to solving problems which will improve education. Dealing with personnel on the job should be a major consideration. To so advocate is not to assume the position of being exclusive in our interests. To the contrary, we are keenly aware of the complexity and breadth and the interrelatedness of interests to be served.

However, we are saying that those so directly affected as teachers must be viewed as more than recipients of the fruit of research. They should be partners in the whole research and development enterprise. Teachers and their organizations, along with others, are a major key to knowledge dissemination and utilization. Adequate and intelligent

involvement in all aspects of the R. & D. enterprise will better insure the intelligent participation of those essential to the innovative process. Research strongly supports the importance of optimum teacher involvement if implementation of new ideas is to take place.

Long ago teachers learned that to guarantee involvement in those decisions which affect their chances of success in a teaching situation requires the legal right of collective action. Bilateral decisionmaking is an essential if we are to succeed in our educational endeavors.

The Rand Corp. has established the importance of implementation strategies and their effects on project outcomes. They have also noted that projects exclusively designed by "outside experts" generally fail to gather support or achieve their objectives. Thus, it follows that to insure better utilization of knowledge, teachers' associations must necessarily be consulted about who represents the interests of teachers in areas of research and development. Few things are more persistently ignored by administrative government than this reality. We are repeatedly told that there is teacher involvement in the R. & D. enterprise, but upon examination, such involvement is most often token and generally carried out by teachers who do not represent a formalized constituency. This is an involvement problem which could be easily corrected.

There is no valid explanation for the persistent assumption as evidenced by practice that the administrative sector at all levels of the educational establishment—local, State, and National—is capable of selecting better qualified teachers for involvement in research and development activities than is the professional association. This is a serious substantive as well as tactical error which inhibits progress, and this is confirmed by research. This is critical, because the way teachers are viewed collectively, especially in this case by the research and development establishment, directly affects the primary informational linkage between general membership organizations and the world of research and development.

For example, the NEA is not itself, nor can it be, a research agency. Therefore, it must necessarily be a knowledge broker in this regard. We are acutely aware of the necessity of linkages between producers of knowledge and teachers as utilizers of knowledge if boys and girls are to be helped. These linkages simply do not now exist. Accordingly, we are at the mercy of forces over which we have no control.

We note with keen interest the change in the original congressional policy for establishing the Institute. In fact, the NEA has ongoing programs and policy positions related to all of the priorities established in H.R. 5988 as areas for concentration of effort for research and development. This includes such matters as (1) improving instruction in all areas, (2) reforming educational finance, (3) facing up to the issue of equality of opportunity for all, including dealing realistically with bilingual and multicultural education, (4) developing strong affirmative action programs for ethnic groups and women, (5) supporting intelligent career education programs, and (6) disseminating knowledge gained from research and development.

It is hoped that an attempt to establish greater specificity by speaking for the improvement of achievement in basic educational skills doesn't reignite the zeal of an ill-conceived and discredited accountability movement which tends to fix on teachers the responsibility for guaranteeing outcomes. This has inhibited teaching and learning. One

of the characteristics of a professional charlatan is to guarantee outcomes. Intelligent prognosis always involves available resources, available methods, and control of environmental conditions.

We do support the new and more specific statement relative to priorities as such, but we would like to be involved in their interpretation. This raises such matters as the constituency of the National Council on Educational Research. According to the Campbell panel mentioned earlier, this Council has "enormous formal powers." This Council has the right to make basic policy for the Institute and oversee the program. We do not see the Council as representative of the interests to be served by the National Institute of Education. As a large teacher advocate organization we are, of course, in a very strong position to assist especially in the dissemination aspects of research and development, but, as noted earlier, this process requires commitment to the entire R. & D. enterprise. Such commitment generally requires greater involvement than teacher associations now enjoy in the arena of policy formulation relative to research.

We are encouraged by the growing acceptance of the concept of longer term financial commitments to projects and national laboratories.

We believe this to be consistent with the importance of establishing adequate dissemination and utilization of new knowledge.

Competition for finite funds will continue but we do feel that current approaches are pernicious and correction is indicated. This itself is an area for research. The very nature and origin of educational finance produces public resistance to needed educational programs. We are convinced that when faced with the finite resources issue, our national priorities should come under continuous and critical scrutiny. Certainly the funding projections for research and development in education suffer in comparison with such support in other areas. In particular, we are very aware of the inadequate support for development and knowledge utilization after research is successfully completed.

We extend our support with the full knowledge that basically we are dealing with a long-range endeavor. Research directed toward producing reliable results in the teaching and learning process will require a long chain of deliberate activities. Consistent progress and direction should be the the mode rather than breakthrough gimmicks and movements which now pervade the educational atmosphere. Innovation has come to mean being put upon. This is tragic.

We recognize that we will always have problems. The emphasis should be toward raising the level of the nature of the problems at hand. It is much easier to deal with adequate nutrition for all when there exists an abundance of food. Research, if successful, always produces problems of a higher order. We will continue support for the endeavor to raise the level and improve the nature of our educational enterprise.

In summary, NEA's support of H.R. 5988 is largely based upon (1) the National Council on Educational Research's willingness to be guided by the recommendations of the Campbell panel, (2) the sensitiveness of the Director and staff to our genuine concern for more meaningful involvement in all aspects of research and development, and (3) the dire necessity of solving some of our serious educational problems in the United States.

We believe our concerns would be ameliorated by affording to us representation on the Council so as to build in at the top policy level assurance of consideration of matters we have raised here. In particular, we would close by again stressing that the teaching and learning needs of teachers should be an important generic reference for a major dimension of research.

Thank you.

Mr. BRADEMAS. Thank you very much.

[Prepared statement of Mr. Darland follows:]

PREPARED STATEMENT OF DAVE DARLAND, ASSOCIATE DIRECTOR OF INSTRUCTION AND PROFESSIONAL DEVELOPMENT, NATIONAL EDUCATION ASSOCIATION

I am Dave Darland, Associate Director of Instruction and Professional Development for the National Education Association. NEA represents some 1.7 million teachers and other educators in all fifty states. As the practitioners of education, we of course have a very great interest in these hearings, and we appreciate the opportunity to present our views.

The National Education Association supports H.R. 5988 which extends the authorization of appropriations for the National Institute of Education. To do so constitutes a considerable act of faith. Candidly we are placing our hopes upon future and not necessarily upon past performance of the Institute. However, we perceive that the Director and staff are acutely aware and sensitive to our concerns. Our expectations have been rekindled also by the attention that has been given to the recommendations of the Campbell panel,[1] especially their call for planning which would overcome the assumption that schools are merely the recipients of the fruits of R & D.

The importance of an adequate system of research and development can hardly be overstated. We believe that it is imperative for the federal government to assume responsibility for the continuous support and extension of our national capacity for high quality and effective research development, knowledge utilization, and problem solving in the area of education.

Teachers are well situated to understand the tentative nature of knowledge. Indeed, they know that to even maintain the status quo in education requires research and development. Accordingly, we recognize the importance of research and development if we are to adequately meet our educational needs. However, recognizing that knowledge derived exclusively from experience is not sufficient should not mean that the practical problems and conventional wisdom of teachers should be ignored. Indeed, we feel strongly that the teaching and learning needs as identified by the classroom teachers should be the generic reference for a major dimension of educational research. The on-the-job needs[2] of teachers as perceived by them is essential to solving problems which will improve education. Dealing with personnel on the job should be a major consideration. To so advocate is not to assume the position of being exclusive in our interests. To the contrary, we are keenly aware of complexity and breadth of and interrelatedness of interests to be served. However, we are saying that those so directly affected as teachers must be also viewed as more than recipients of the fruit of research. Rather, they should be partners in the whole research and development enterprise. Teachers and their organizations, along with others, are a major key to dissemination and knowledge utilization. Adequate and intelligent involvement in all aspects of the R. & D. enterprise will better insure the intelligent participation of those who are essential in the innovative process.[3] Research strongly supports the importance of optimum teacher involvement if implementation of new ideas is to take place.

Long ago teachers learned that to guarantee involvement in those decisions which affect their chances of success in a teaching situation required the legal right of collective action. Bilateral decision making is an essential if we are to

[1] R. & D. Funding Policies of the National Institute of Education: Review and Recommendations. Final report of consultants to the director and the National Council on Educational Research. U.S. Department of Health, Education and Welfare, Washington, D.C. 20208—August 1975. Ronald Campbell was chairman of the panel.

[2] See appendix A, page 8, for listing of important research findings regarding in-service education for teachers and factors which influence effectiveness.

[3] See Ernest House, The Politics of Innovation. McCutchan Publishing Corp.: Berkeley, Calif., 1974.

succeed in our educational endeavors. The Rand Corporation has established the importance of implementation strategies and their effects on project outcomes. They have also noted that projects exclusively designed by "outside experts" generally failed to gather support or achieve their objectives.[4] Thus, it follows that to insure better utilization of knowledge, teachers' associations must necessarily be consulted about who represent the interests of teachers in areas of research and development. Few things are more persistently ignored by administrative government than this reality. We are repeatedly told that there is teacher involvement in the R. & D. enterprise, but upon examination, most often such involvement is token and generally carried out by teachers who do not represent a formalized constituency. This is an involvement problem which could be easily corrected.

There is no valid explanation for the persistent assumption as evidenced by practice that the administrative sector at all levels of the educational establishment including local, state, and national is capable of selecting better qualified teachers for involvement in research and development activities than is the professional association. This is a serious substantive as well as tactical error which inhibits progress and this is confirmed by research. This is critical because the way the teachers are viewed collectively, especially in this case by the research and development establishment, directly affects the primary informational linkage between general membership organizations and the world of research and development. For example, the NEA is not itself, nor can it be, a research agency. Therefore, it must necessarily be somewhat of a knowledge broker in this regard. We are acutely aware of the necessity of linkages between producers of knowledge and teachers as utilizers of knowledge if boys and girls are to be helped. These linkages simply do not now exist. Accordingly, we are at the mercy of forces over which we have no control.

We note with keen interest the change in the original Congressional policy for establishing the Institute. In fact, the NEA has ongoing programs and policy positions related to all of the priorities established in H.R. 5988 as areas for concentration of effort for research and development. This includes such matters as (1) improving instruction in all areas, (2) reforming educational finance, (3) facing up to the issue of equality of opportunity for all, including dealing realistically with bilingual and multicultural education, (4) developing strong affirmative action programs for ethnic groups and women, (5) supporting intelligent career education programs, and (6) disseminating of results of knowledge gained from research and development.

It is hoped that in attempting to establish greater specificity by speaking for the improvement of achievement in basic educational skills doesn't re-ignite the zeal of an ill-conceived and discredited accountability movement which tends to fix responsibility for guaranteeing outcomes on teachers. This has inhibited teaching and learning where they occur. One of the characteristics of a professional charlatan is to guarantee outcomes. Intelligent prognosis always involves available resources, available methods, and control of environmental conditions.

We do support the new and more specific statement relative to priorities as such, but we would like to be involved in their interpretation. This raises such matters as the constituency of the National Council on Educational Research. According to the Campbell panel mentioned earlier, this Council has "enormous formal powers." This Council has the right to make basic policy for the Institute and oversee the program. We do not see the Council as representative of the interests to be served by the National Institute of Education. As a large teacher advocate organization we are, of course, in a very strong position to assist in especially the dissemination aspects of research and development, but as noted earlier, this process requires commitment to the entire R. & D. enterprise. Such commitment generally requires greater involvement than teacher associations now enjoy in the arena of policy formulation relative to research.

We are encouraged by the growing acceptance of the concept of longer term financial commitments to projects and national laboratories.

We believe this to be consistent with the importance of establishing adequate dissemination and utilization of new knowledge. Competition for finite funds will continue but we do feel that current approaches are pernicious and correction is indicated. This is an area for research itself. The very nature and origin of educational finance produces public resistance to needed educational programs. We are convinced that when faced with the finite resources issue, our national priorities

[4] Greenwood, D. W., Mann, D., McLaughlin, M. W., Federal Programs Supporting Educational Change, vol. III: The Process of Change. Santa Monica, Calif. The Rand Corp., April 1975, p. 80.

should come under continuous and critical scrutiny. Certainly the funding projections for research and development in education suffer by comparison with such support in other areas. In particular, we are very aware of the inadequate support for development and knowledge utilization after research is successfully completed.

We extend our support with the full knowledge that basically we are dealing with a long-range endeavor. Research directed toward producing reliable results in the teaching and learning process will require a long chain of deliberate activities. Consistent progress and direction should be the mode rather than breakthrough gimmicks and movements which now pervade the educational atmosphere. Innovation has come to mean being put upon. This is tragic!

We recognize that we will always have problems. The emphasis should be toward raising the level of the nature of the problem at hand. It's much easier to deal with adequate nutrition for all when there exists an abundance of food. Research, if successful, always produces problems of a higher order. We will continue support for the endeavor to raise the level and improve the nature of our educational enterprise.

In summary, NEA's support of H.R. 5988 is largely based upon (1) the National Council on Educational Research's willingness to be somewhat guided by the recommendations of the Campbell panel, (2) the sensitiveness of the Director and staff to our genuine concern for more meaningful involvement in all aspects of research and development, and (3) the dire necessity of solving some of our serious educational problems in the United States.

We believe our concerns would be somewhat ameliorated by recognition of and action upon the issue of representation on the Council so as to build in at the top policy level assurance of consideration of concerns we have raised herein. In particular, we would close by again stressing that the teaching and learning needs of teachers should be an important generic reference for a major dimension of research.

APPENDIX A

Constructing a design framework—Cues from research

In a recent comprehensive review of research on in-service education by Lawrence et al, a number of clear and strong patterns of effectiveness emerged. The 97 studies that were analyzed showed that differences in materials, procedures, designs, and settings for in-service education are indeed associated with differences in effectiveness. Some of the more important findings were these:

1. School-based in-service programs concerned with complex teacher behaviors tend to have greater success in accomplishing their objectives than do college-based programs dealing with complex behaviors. (p. 8)

2. "Teacher attitudes are more likely to be influenced in school-based than in college-based in-service programs." (p. 9)

3. "School-based programs in which teachers participate as helpers to each other and planners of inservice activities tend to have greater success in accomplishing their objectives than do programs which are conducted by college or other outside personnel without the assistance of teachers." (p. 11)

4. "School-based inservice programs that emphasize self-instruction by teachers have a strong record of effectiveness . . . . . " (p. 12)

5. "Inservice education programs that have differentiated training experiences for different teachers (that is, 'individualized') are more likely to accomplish their objectives than are programs that have common activities for all participants." (p. 14)

6. "Inservice education programs that place the teacher in [an] active role (constructing and generating materials, ideas and behavior) are more likely to accomplish their objectives than are programs that place the teacher in a receptive role (accepting ideas and behavior prescriptions not of his or her own making)." (p. 14)

7. "Inservice education programs that emphasize demonstrations, supervised trials and feedback are more likely to accomplish their goals than are programs in which the teachers are expected to store up ideas and behavior prescriptions for a future time." (p. 14)

8. "Inservice education programs in which teachers share and provide mutual assistance to each other are more likely to accomplish their objectives than are programs in which each teacher does separate work." (p. 15)

9. "Teachers are more likely to benefit from inservice education activities that are linked to a general effort of the school than they are from 'single-shot' programs that are not part of a general staff development plan." (p. 15)

10. "Teachers are more likely to benefit from inservice programs in which they can choose goals and activities for themselves, as contrasted with programs in which the goals and activities are preplanned." (p. 15)

11. "Self-initiated and self-directed training activities are seldom used in inservice education programs, but this pattern is associated with successful accomplishment of program goals." (p. 15)

Note: Xeroxed from Rethinking In-Service Education. Roy A. Edelfelt and Margo Johnson, Editors, Washington, D.C.: A National Education Association Publication, 1975.

Source: Lawrence, G. and others. Patterns of Effective In-service Education: A State of the Art Summary of Research on Materials and Procedures for Changing Teacher Behavior in In-service Education. Report prepared for the State of Florida, Department of Education, December 1974.

[Prepared statement of Ms. Kemble follows:]

PREPARED STATEMENT BY EUGENIA KEMBLE, SPECIAL ASSISTANT TO THE PRESIDENT, AMERICAN FEDERATION OF TEACHERS

The American Federation of Teachers welcomes the opportunity to present [illegible] with our views on the reauthorization of the National Institute of Education, a young agency with a troubled history and an as yet unproven national role. I am Eugenia Kemble, Special Assistant to the President of the AFT and I am accompanied by Greg Humphrey, our Director of Legislation. We represent over 450,000 teachers, paraprofessionals, guidance counselors and other school personnel whose professional success depends in part on the development of a substantial body of knowledge on how children learn, how teachers teach and what particular characteristics of schools make learning and teaching happen.

Developing such a body of knowledge has never been an easy thing for educators to do. Educational research has been plagued by a lack of precision and inherent subjectivity. This has led to the unfortunate consequence that whim, hunch, and politics have more to do with what goes on in schools than solid knowledge. In the last few years, for example, this nation has watched educational fads tagged performance contracting, programming, planning and budgeting, vouchers, the open classroom, accountability, decentralization and performance-based teacher education fluctuate in popularity. Each has been cast into the educational arena with boundless enthusiasm as if it were *the* answer only to have its drawbacks, and even failings, emerge later. We have also witnessed a whole range of curricular approaches come and go in ever increasing numbers. In reading alone, we have seen a movement away from whole word approaches, commonly used with what are called basal readers about ten years ago, back to phonics or decoding approaches. This, in turn, has been followed by the re-emergence of whole word approaches. Now we call them psycholinguistics. Unfortunately, the National Institute of Education has contributed to this pattern by putting heavy investments into dubious ideas like voucher programs which not only have had little utility, but are even potentially destructive of public education.

As professionals, teachers are particularly tired of this kind of merry-go-round of ideas and programs, especially since the impetus for most of them comes from commercial publishers trying to sell programs, from collections of academics, or from politicians who want to keep politically out front by picking up and running with every new fad. Parents are tired of this pattern too. Unfortunately, their suspicion often translates into a wariness about schools in general and a resentment toward program experimentation. The back-to-basics sentiment now emerging is probably somewhat reflective of parental weariness with the endless cycle of untested and often unsuccessful school reform programs.

Teachers refuse to accept responsibility for this pattern of changing program popularity. They have not led the way in any of these movements. Rather, teachers have usually found themselves on the receiving end of fads created by others whose interests often have little to do with education. Teacher sentiment is rarely tapped by the initiators of educational change. Their practical experience and classroom organization are frequently stifled or molded to fit someone else's idea of what constitutes a good program.

This is where educational research and the National Institute of Education come in. Research in education has suffered from problems of fragmentation and irrelevance. In the past, it has consisted largely of a multiplicity of "discoveries" made by this or that professor tucked away in this or that education school. Even the idea that there are research problems of national scope that deserve some

coordinated examination has seemed far-fetched until recently. Fortunately, a recognition that there are broad questions that need to be answered is emerging. The idea that answering them is the responsibility of the federal government is also gaining ground. The creation of the National Institute of Education is evidence of this new awareness.

But, there is still a long way to go even in defining the research problem, much less in using research to give us some educational direction. We at the American Federation of Teachers believe that the gap between the community of researchers and the community of the schools simply must be closed if any coordinated national research effort is going to be successful in defining the questions that must be asked, in examining the possible answers to these questions, and in using these answers to change school programs. So far the gap remains a large one. It is our hope that researchers and school people can learn how to communicate with each other and that together they can find out enough about what really works in education to stop the endless cycle of ill-conceived educational innovation and begin to implement well studied approaches.

The National Institute of Education is a new agency. It has been staffed largely by people from education schools who sit on one side of the research community—school community gap. It has suffered a year without a director. And it has, until recently, failed to perceive how essential it is that research weave its way into the practical structure of education in this country. It has been effective in telling the public at large—including those of you who represent it—what we know and what we don't know about education.

Despite its failings to date, we believe that the National Institute of Education represents the best hope for seeking knowledge about education. In the very least, its existence can help raise the level of discourse over what makes sound educational policy—even if some of its research is problematic and inconclusive, since many aspects of any social science research are likely to remain problematic and inconclusive. We also think that the NIE has the potential to coordinate research and to collect and disseminate its results as only a federal agency can do.

We believe that a federal agency like NIE stands the best chance of relating one set of research findings to another. It is more likely that this will be done through a coordinated federal effort than by relying solely on the sort of program-by-program evaluations used prior to NIE's creation, though these efforts should continue as well. In our minds these are hopes that the very existence of NIE holds out as a promise. In saying this, we must also say that we do not believe that the agency has functioned in this role as yet. One of the reasons for its failure is its continuing inability to grapple with the need to involve teachers and other school people in its work.

Not all of this failing is NIE's fault. Part of the problem has to do with the inadequacies of the training ground for both teachers and researchers—the failure of education schools to expose teachers to the methodology of research and to expose researchers to the practical world of teaching and the schools. But this is a structural problem that it is NIE's responsibility to solve. To date its efforts have not been adequately directed to this problem. It is doing little in the way of training researchers—much less training teachers in research—although the Director is authorized to "train individuals in educational research" under the terms of the agency's original authorizing legislation. Its dissemination efforts—which are the logical place for a two-way street to be developed between researchers and the educational community—continue to be viewed as output mechanisms which neither trap nor attempt to inform professional sentiment. They seem to be designed to simply tell the educational bureaucracy what the latest findings are. In all fairness, there is some re-thinking of its dissemination function going on in the Agency, but we continue to see little role for professionals or their organizations in it. We think that it is very important for NIE to focus its dissemination effort on developing a coordinated interaction between the teaching and research communities in terms of the actual process of research—which questions should be asked; what possible ways there are of approaching the problems; and how best to make whatever answers we come up with operative. All of these must include the involvement of teachers in the research process itself.

We have some ideas about how this might be done, some of which mean using organizations like the American Federation of Teachers as dissemination mechanisms, and some of which involve developing in-service professionally led, teacher training devices. The teachers' centers, which are now meeting with considerable success in Great Britain, are one example. We think that ideas like these go to the heart of NIE's potential success because they confront the structural gap between teachers and researchers which is so basic to the agency's ineffectiveness thus far. We also think these are good ideas because they would

provide a place for teacher ideas to be heard and developed and because they would allow for professional enrichment at a time when teaching staffs are stable.

There are other ways this gap could be closed. NIE could view itself as a service agency for the educational community and its representatives as well as Congress. We have plenty of questions our members ask about programs and schools, other than the ones they are working in, which a Federal agency in the business of knowing the answers ought to be able to help us with. We would like to be able to turn to NIE for fair and accurate answers. As professionals, we would like to be able to help interpret these answers to still larger communities such as our friends in the AFL-CIO and other publics which include the parents of the children we teach. We think that NIE should be structured to assist teachers in this logical role.

We must say, in looking at these problems and suggested solutions that some of the reasons for NIE's myopia with regard to ideas like these is built into its decision-making apparatus. The National Council of Educational Research, the policymaking arm of NIE is dominated by business representatives and university presidents. Not one representative of the profession of teaching sits on that body even though it has fifteen members and therefore plenty of room. The research centers and regional laboratories which NIE funds have also been notoriously remote from the teaching profession though they are beginning to recognize this problem.

Given this set of perspectives and our analysis of the problems, we would like to make the following recommendations with regard to the reauthorization of the National Institute of Education:

NIE should be reauthorized for a period of at least three years. We do not believe that any serious research effort could be started on the tenuous grounds of a yearly authorization.

The amount reauthorized should cover the total period of three years in the aggregate. A designated yearly authorization would not allow the flexibility properly left to the appropriations process in evaluating the Agency's failure or success on a year to year basis.

NIE should be reauthorized for such sums as may be necessary to complete its work.

Appointments to the National Council on Educational Research should be made on the same basis as appointments are now made to the National Advisory Councils attached to other education legislation. Appointments by designated seat would insure minimum representation from the various groups which deserve a voice with regard to NIE's research activities.

Priority areas need not be changed from those listed in the original authorizing legislation. Those listed in the proposed amendments to this legislation are far too specific in their reflection of the existing bureaucracy at NIE. Over the course of three years additional areas may emerge which deserve priority treatment and there is no reason why the agency should be locked into the ones it is now focusing on.

While recognizing the past failings of NIE, we would like to see the agency emerge as a source of knowledge that would benefit policy-making in education. We believe that in order to do this, NIE will have to closely examine its relationship to practicing educators. We urge the Agency to consider its role in light of the suggestions we have made here with regard, first, to the training of teachers, particularly those who are already on the job, and second, to the involvement of teachers in the formulation of research questions, the process of research itself and the transmittal of research results to the schools. We believe that the suggestions we have made with regard to NIE's reauthorization will give it the life it needs to make the adjustments we suggest and the resources it needs to do the job we think is so important to the improvement of American education.

Mr. BRADEMAS. Ms. Kemble.

STATEMENT OF EUGENIA KEMBLE, SPECIAL ASSISTANT TO THE PRESIDENT FOR RESEARCH, AMERICAN FEDERATION OF TEACHERS, WASHINGTON, D.C.

Ms. KEMBLE. The American Federation of Teachers welcomes the opportunity to present you with our views on the reauthorization of the National Institute of Education, a young agency with troubled history and an as yet unproven national role.

I am Eugenia Kemble, special assistant to the president of the AFT and I am accompanied by Greg Humphrey, our director of legislation.

We represent over 450,000 teachers, paraprofessionals, guidance counselors, and other school personnel whose professional success depends in part on the development of a substantial body of knowledge on how children learn, how teachers teach, and what particular characteristics of schools make learning and teaching happen.

Developing such a body of knowledge has not been an easy thing for educators to do. Educational research has been plagued by its lack of precision and inherent subjectivity. This has led to the unfortunate consequence that whim, hunch, and politics have had more to do with what goes on in schools than solid knowledge. In the last 10 years, for example, this Nation has watched educational fads tagged performance contracting, programing, planning and budgeting, vouchers, the open classroom, accountability, decentralization, and performance-based teacher education fluctuate in popularity. Each has been cast into the educational arena with boundless enthusiasm as if it were the answer only to have its drawbacks, and even failings, emerge later. Unfortunately, the National Institute of Education has contributed to this pattern by putting heavy investments into dubious ideas like voucher programs which not only have had little utility, but are even potentially destructive of public education. Changing this pattern is where educational research and NIE come together.

Research in education has suffered from problems of fragmentation and irrelevance. In the past, it has consisted largely of a multiplicity of "discoveries" made by this or that professor tucked away in this or that education school. Even the idea that there are research problems of national scope that deserve some coordinated examination has seemed farfetched until recently. Fortunately, a recognition that there are broad questions that need to be answered is emerging. The idea that answering them is the responsibility of the Federal Government is also gaining ground. The creation of the National Institute of Education is evidence of this new awareness.

But, there is still a long way to go even in defining the research problem, much less in using research to give us some educational direction. We at the American Federation of Teachers believe that the gap between the community of researchers and the community of the schools simply must be closed if any coordinated national research effort is going to be successful in defining the questions that must be asked, in examining the possible answers to these questions, and in using these answers to change school programs. So far the gap remains a large one.

Despite its failings to date, we believe that the National Institute of Education represents the best hope for seeking knowledge about education. In the very least, its existence can help raise the level of discourse over what makes sould educational policy—even if some of of its research is problematic and inconclusive, since many aspects of any social science research are likely to remain problematic and inconclusive. We also think the NIE has the potential to coordinate research and to collect and disseminate its results as only a Federal agency can do.

We believe that a Federal agency like NIE stands the best chance of relating one set of research findings to another. It is more likely that this will be done through a coordinated Federal effort than by relying solely on the sort of program-by-program evaluations used prior to NIE's creation, though these effects should continue as well.

In our minds these are hopes that the very existence of NIE holds out as a promise. In saying this, we must also say that we do not believe that the agency has functioned in this role yet. One of the reasons for its failure is its continuing inability to grapple with the need to involve teachers and other school people in its work.

One solution is, we think, that it is very important for NIE to focus its dissemination effort on developing a coordinated interaction between the teaching and research communities in terms of the actual process of research—which questions should be asked; what possible ways there are of approaching the problems; and how best to make whatever answers we come up with operative. All of these we believe strongly must include the involvement of teachers in the research process itself.

We have some ideas about how this might be done. We think AFT could be used as a dissemination mechanism and we believe also that teacher centers which are now meeting with considerable success in Great Britain are one good means by which NIE could disseminate information to schools.

We think that ideas like these go to the heart of NIE's potential success because they confront the structural gap between teachers and researchers which is so basic to the agency's ineffectiveness thus far. We also think these are good ideas because they would provide a place for teacher ideas to be heard and developed and because they would allow for professional enrichment at a time when teaching staffs are stable.

There are other ways this gap could be closed. NIE could view itself as a service agency for the educational community and its representatives as well as Congress.

I would like to just run through a number of very specific points in terms of the reauthorizing legislation.

NIE should be reauthorized for a period of at least 3 years. We do not believe that any serious research effort could be started on the tenuous grounds of a yearly authorization.

The amount authorized should cover the total period of 3 years in the aggregate. We don't see the point of specifying a year-by-year authorization because it does not give room to the Appropriations Committee to evaluate the work of NIE. We have not said what specific sums NIE should get. We think it should get what it needs to do the work.

One of the problems in the budgetary area as far as this agency goes, is that we have not seen good figures as to what it is doing presented. We do support the amount in the statement made by Dr. Krathwohl earlier as a suggested figure, but we would like more thought to be given to this area.

Appointments to the National Council on Educational Research should be made on the same basis as appointments are now made to the National Advisory Councils attached to other education legislation.

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Appointments by designated seat would insure minimum representation from teachers and other groups which deserve a voice with regard to NIE's research activities.

Priority areas need not be changed from those listed in the original authorizing legislation. Those listed in the proposed amendments to this legislation we feel are far too specific and do not allow the room for change that might occur over the next 3 years.

While recognizing the past failings of NIE, we would like to see the agency emerge as a source of knowledge that would benefit policymaking in education. We believe that in order to do this, NIE will have to closely examine its relationships to practicing educators. We urge the agency to consider its role in light of the suggestions we have made here with regard, first, to the training of teachers through teacher centers, particularly those who are already on the job, and second, to the involvement of teachers in the formulation of research questions, the process of research itself, and the transmittal of research results to the schools. We believe that the suggestions we have made with regard to NIE's reauthorization will give it the life it needs to make the adjustments we suggest and the resources it needs to do the job we think is so important to the improvement of American education.

Thank you.

Mr. BRADEMAS. Thank you very much.

Mr. Humphrey, do you wish to add?

Mr. HUMPHREY. No.

Mr. BRADEMAS. Mr. Steinhilber.

STATEMENT OF AUGUST STEINHILBER, ASSISTANT EXECUTIVE DIRECTOR FOR FEDERAL RELATIONS, NATIONAL SCHOOL BOARDS ASSOCIATION, WASHINGTON, D.C.

Mr. STEINHILBER. Mr. Chairman, I would like our statement submitted for the record and I would like to make a few extemporaneous remarks, if I may.

[The statement of August Steinhilber follows:]

PREPARED STATEMENT OF AUGUST W. STEINHILBER, ASSISTANT EXECUTIVE DIRECTOR, OFFICE OF FEDERAL RELATIONS, NATIONAL SCHOOL BOARDS ASSOCIATION

Mr. Chairman, my name is August W. Steinhilber, and I am the Assistant Executive Director for Federal Relations of the National School Boards Association. Accompanying me today is Michael A. Resnick, Director of Legislative Services for the Association.

The National School Boards Association is the only major education organization representing school board members—who are in some areas called school trustees or school committee members. Throughout the nation, approximately 80,000 of these individuals are Association members. These people, in turn, are responsible for the education of more than 95 percent of all the nation's public school children.

Currently marking its thirty-fifth year of service, NSBA is a federation of state school boards associations, with direct local school board affiliates, constituted to strengthen local lay control of education and to work for the improvement of education. Most of these school board members are elected public officials. Accordingly, they are politically accountable to their constituents for both educational policy and fiscal management. As lay unsalaried individuals, school board members are in a rather unique position of being able to judge federal, state and local relationships, such as the National Institute of Education, purely from the

standpoint of public education, without consideration to their personal professional interest. At the National School Boards Association's convention last April, the following resolution was passed that deals specifically with N.I.E.:

Resolution 2.2.7—National Institute of Education. The National School Boards Association urges that at least one-third of funds appropriated to the National Institute of Education for grants and contracts be awarded directly to public elementary and secondary education, to local school boards for implementation, and that grant and contract awards that relate to the education process or other operational aspects of any local school district be made only with the approval of the governing local school board. Furthermore, the Association urges that a high priority be given to appropriate funding of this program to carry out its full purposes, so that research and development can be as much a part of education as it is a part of industry.

Mr. Chairman, at the outset, it should be stated that the National School Boards Association supports the continuation of an N.I.E. function. In offering this support, we do so in the light of having some serious concerns with respect to the Institute's past sense of mission and priorities. However, it is because N.I.E. has been making positive efforts to redirect its activities that we believe the Institute concept should be extended for another two years.

Our concerns with the Institute's past performance fall into three areas. First, it has not shown a sufficient commitment to the applied research needs of elementary and secondary education. While NSBA recognizes the need for "basic" research, we also believe that the main role of N.I.E. should include supplying our schools with testing, information and innovation that can improve the actual delivery of the education product. To achieve this end, we believe that one-third of N.I.E.'s funding should be targeted for use by local school districts or by other groups working with local school districts to improve school system effectiveness.

Our second concern, which is really a corollary of the first, is that not only should the practicing education community be given greater service, but the service must be provided in a form that can fit within the governance responsibilities of local school districts. For example, in the FY 1976 budget request, among the recommended activities were teacher centers for in-service training, and among the possible grantees were professional associations. Hence, while at first blush this recommendation appears responsciv to practical needs, the format of teacher center operated by a teacher's association would seriously interfere with the public duty of school boards.

In addition to the need to assign a higher priority to education practice and to do so within an acceptable format, our third area of concern is that N.I.E. has on occasion advanced positions which are unacceptable to the education community. For example, N.I.E.'s previous commitment to spend relatively large sums on vouchers seemed ill-advised in light of the philosophical resistance thereto voiced by the education community.

At the same time, we are encouraged by recent efforts made by N.I.E. to seek the advice and consultation of the education community. Furthermore, turning to H.R. 5988, we believe that the proposed amendment therein to section 405(b)(2) will assist in redirecting N.I.E.'s priorities in a way which can be supported by local school districts.

Mr. Chairman, on behalf of the National School Boards Association, I wish to thank you and the members of the Subcommittee for this opportunity to testify.

Mr. STEINHILBER. The first comment I would like to make is the National School Board Association was literally one of the first organizations to support the formation of NIE back a number of years ago and continues its support of NIE.

Second of all, NIE, I guess is the exception that proves a rule which we follow on Federal legislation. We normally come before this committee suggesting very tight legislation, how the money should be spent, and very specific dollar amounts by program, with as little discretion in the administrative agencies as is humanly possible.

I would like to underscore with respect to NIE we make an exception. We do not take that posture and in fact we take the opposite.

I would say that the problems which we have had with specificity in NIE is not with the authorizing legislation, but with other education bills as they come along. There seems to be a tendency in other

elementary and secondary education bills for riders to be attached that NIE should do a study on this or NIE should do a study on that. This somewhat undermines the position we are taking in the first instance in the original authorization.

I think I would like to make one particular comment with respect to the one-third that was previously mentioned. That NSBA language was carefully drawn. It says "should be funded for the use of local school districts or by other groups working with LEA's."

In this instance we are looking for cooperation. We are saying that the money can be given almost entirely to State departments of education, or almost all to colleges and universities. We are not saying that the money can only go to local school districts as such. We are saying that there should be a concept of cooperation. That is one-third toward elementary and secondary education, but a cooperative endeavor.

Let me give you two kinds of problems we have run into where there has been little cooperation. Problem No. 1. A grant is made to a college or a university that is going to study a particular school system and the first time that school system finds out about this study is when the superintendent or board president reads about it in the local newspaper. You can imagine the little furor that takes place. That problem has been resolved with the current authorship of NIE. We are guaranteed it won't happen again.

Then on the same question of cooperation or lack thereof I will give you an example relating to two pieces of paper which passed across my desk. One was an announcement of a grant of NIE money for a research project to a legal activist group. Immediately following, I received a similar press release from the same group indicating how they were going to get NIE funds and use the results of their research in their litigation against local school districts.

When NSBA reaches the appropriations process, it gets very difficult to start fighting for appropriations for NIE in a very stringent period of time when those kinds of stresses take place internally.

So what I am saying and what our association is saying is that one third is not to be earmarked for local school districts. We are looking for it as a concept and it may very well be that the LEA will see little, but we are looking for cooperative endeavors.

I think that, Mr. Chairman, completes our statement.

Mr. BRADEMAS. Thank you, Mr. Steinhilber.

Mr. STEINHILBER. Thank you.

Mr. BRADEMAS. Mr. Davis.

STATEMENT OF WALTER G. DAVIS, DIRECTOR OF EDUCATION, AFL–CIO, WASHINGTON, D.C.

Mr. DAVIS. Yes; Mr. Chairman, I have a very brief statement.

Mr. Chairman, my name is Walter G. Davis. I am director of the AFL–CIO Department of Education.

I appreciate this opportunity to share the Federation's views with this committee on H.R. 5988—a bill to extend the authorization of appropriations for the National Institute of Education.

The NIE, in its brief history, has not enjoyed a peaceful period. Indeed, its early life has been marked with some degree of turbulence resulting from its initial approach to the task of providing American

educators with the means to make sound judgments for the implementation of America's educational goals.

The labor movement, to a small degree, has probably contributed to this turbulence particularly in matters affecting labor-management relations and in areas related to the world of work. I would hasten to add, however, that labor's involvement has been primarily in this narrow area. We, therefore, are precluded in our comments from expressing a view relating to other NIE activities, although our interest permeates all of education.

Organized labor represents a major consumer interest in American education from preschool to graduate school programs. In other words, we claim a stake in what happens in the classrooms of America. Counting the independent unions together with the 14 million members of the AFL–CIO, there are a substantial number of trade union members and their families who are involved in some aspect of education. This provides workers and their families, it seems to us, with the credentials to express views on the public education policy goals of the nation as well as on their implementation.

Having said that, we are glad to appear in support of a bill to extend NIE. We believe that this new agency is a vital component of the overall Federal effort to provide the leadership to quickly resolve those remaining questions for which important research is needed. As a Nation, America needs guidance to reach the goal of equal educational opportunity for all Americans.

We therefore commend the sponsors of H.R. 5988 for its enumeration—A through E—of the priority research and development needs set forth in the bill. This touches the basic areas for which research is certainly needed.

The AFL–CIO has a long consistent record of supporting the concept of equality of opportunity in education. Organized labor strongly concurred with the Brown decision in 1954. This landmark case offered great promise to America. Effective and early implementation would have eliminated the subsequent confusion over what is and what is not quality education. Instead, through vacillation, America opened the door to those who opposed equal opportunity in the first place and who have now learned to express their views in sophisticated academic terms. The challenge to NIE is to objectively provide us with the facts which will offer the education community, 21 years later, the means to develop effective alternatives to reach this goal.

In regard to paragraph D, Career Education, the AFL–CIO has strongly and consistently supported the view that the Nation's youth should be exposed to a wide range of career options to enable them to compete in today's everchanging world of work. We do, however, have serious reservations about some plans which have been put forward in the education marketplace of ideas to implement this goal. For example, in our view, the notion that secondary school students should enter the work force to gain needed "hands-on" experience in communities with high levels of unemployment reflects an insensitivity to the problems of the unemployed and to the heads of households affected by the downturn in the Nation's economy. Labor's role, in this connection has been to oppose such career education schemes which conflict with our priority concern for the unemployed adults represented in our national statistics.

Our attitude is based upon economic considerations, not upon a disregard for the youth of America. I can assure this committee that if and when we return to a full employment economy, the AFL–CIO will automatically review this position. While we support the extension of NIE, we are hopeful that in the conduct of their research programs such factors will receive their attention.

In conclusion, Mr. Chairman, the AFL–CIO recognizes the great potential for a positive contribution to the American system of education which the Institute can make. For this reason we support its continuance and the goals of its mission. We also urge the Congress to concur in this view.

Thank you.

Mr. BRADEMAS. Thank you very much, Mr. Davis, and I extend my thanks to everyone for each statement.

Now, what comes through loud and clear to me from what each of you has said is that you believe that NIE should focus greater attention on elementary and secondary education and, second, there should be much more attention to involving the teacher in the research enterprise.

I wonder if beyond the suggestion you have made with respect to representation on the National Council, if you have any specific suggestions to make that would encourage closer involvement, more deep involvement of teachers. I here address myself to elementary and secondary school teachers, I take it, primarily, in setting the research agenda and in being involved with the conduct and dissemination of research.

Ms. KEMBLE. I would like to say first that presumably the whole question of the process of representation is going to bring up new areas of substance which we feel may not be reaching NIE at this point, but aside from that, in terms of our concerns I think we would say that the area of teacher education is one that should be seriously looked at.

I think that the suggestion we put in our testimony on teacher centers at the in-service level constitutes one of them. There are a number of ideas being presented now in the higher education community on teacher education—having to do with how to improve it—and we think this is an area that needs looking at. It is also one we would like to have some input on in terms of suggestions.

One of the things that we tried to emphasize with regard to the structure of NIE is that the poor relationship between researchers and teachers has to do with what is wrong with their training on both ends. We think some of what was discussed earlier here about training and research ought to be directed to teachers. If you had a combined practitioner-researcher in the field or working at NIE, you would begin to improve communication between the field and researchers. We also believe this would improve the research arrived at.

Mr. BRADEMAS. Mr. Darland.

Mr. DARLAND. I would agree with the emphasis on inservice teacher education. We have very definite well-defined ideas about inservice. I don't think we meant to be exclusive, though, in our interests. For example, educational finance is a national priority issue. However, research will rise or fall depending upon knowledge utilization and application. Development and dissemination are important.

If we had run the agricultural research endeavor in this country the way we have run the educational research endeavor we would never have had hybrid seed corn.

Mr. BRADEMAS. Mr. Jeffords.

Mr. JEFFORDS. I have no questions at this time.

Mr. BRADEMAS. Mr. Hall.

Mr. HALL. No questions.

Mr. BRADEMAS. Mr. Pressler.

Mr. PRESSLER. I would like to ask about, and this has been covered a bit, about applied research needs, and some of those that have been ignored. Is a $70 million appropriation a level in the applied research area, or is that the figure we are talking about in applied research?

Mr. DARLAND. I think the amount of money established in all of the plans is obviously inadequate to meet all of the problems. We need priority policy. We are saying we would like to be involved. I think everyone sitting here at this table and the other table are saying the same thing.

With reference to the other question, I believe you asked: "What kinds of concerns are there that are not being looked at that should be looked at?" Is that what you said?

Mr. PRESSLER. Yes.

Mr. DARLAND. We have a list and have done a needs assessment. The gentleman from Nebraska referred to them. I think teachers are very aware and telling us all the time one of their major problems is how to deal with learning of children from all of the different backgrounds. There is great diversity. Teachers need some help Research and development need to be done in this area We have a whole list of things we are concerned about. They are related to the problems of teachers on the job.

Problems of teachers should be a specific area to look at in terms of developing theory and design for research. It is the research design that I think we are talking about. The staff at NIE are becoming more and more sensitive to this problem.

Mr. PRESSLER. Could we get that list or have we got that list.

Mr. DARLAND. I will be very glad to furnish you with the data on our needs assessment as to what teachers say they need. This assessment happens to be related directly to instruction, but we have others. We are very concerned about the finance problem.

Ms. KEMBLE. I think in terms of basic research there is research going on now in NIE on the learning question in the basic skills area and I think we would be generally supportive of that. By this I mean how children learn to read, how they come to understand math concepts, that sort of thing. But my understanding of NIE is that the large proportion of the funding is going into applied research. I think in this area that the whole curriculum development effort that is being built on top of the research effort in terms of labortories and centers is one that is important.

And this is also where we feel that the teachers should be more involved, the laboratories are regional and they are out in the field and they do have the potential of being close to our members, so if we could connect the two, basic and applied, it might be in this kind of way.

Mr. PRESSLER. Thank you very much.

Mr. BRADEMAS. Mr. Cornell.

Mr. CORNELL. I noticed a number of references to your in-service training. I notice also, on page 3 of your statement, you state a budget, or mention a budget request for fiscal 1976 for teacher centers for in-service training.

Would you care to explain your opposition to that? That is page 3, first paragraph.

Mr. STEINHILBER. Our problem with in-service, when we get into the question of teacher centers and in-service training, there is a very sensitive area in which we have to operate and I would like to, I guess best describe it in this way. We have been working with other associations at this particular table with respect to the higher education amendments which are beginning to wend their way through Congress. I am somewhat concerned that we lock in prematurely what a teacher center is, what a teacher center's function is, who operates a teacher center, and the relationship of a teacher center to the rest of the school system. In some instances these center have been almost independent of the school system itself, and there we begin to have some concerns. If they have no relationship to that school system are they in reality going to be able to transmit what takes place in that center to the classroom? I think this gives you an idea of that particular concern.

Mr. CORNELL. Well, it would appear to me if teachers and teacher associations are operating these, that they should surely be conveying to the practical classroom experience that they have had.

Mr. STEINHILBER. This is not always true, because there is, as I said, well, that is a presumption that takes place which we have not seen in absolute terms verified by the centers that we have looked at.

So while that is basically—well, we are not opposing centers, far from it—indeed, we would like to see a lot more experimentation done on teacher centers and that is why we press for some experimentation data with a review of how those teacher centers operate. But we certainly don't want to get locked in one particular kind or variety of a center. Any application for funds for a center must be made by the school system—not an education association.

Mr. CORNELL. I may be approaching this from a little biased point of view. I will admit, but I am always concerned, I must say, and I think I find common response, too, Mr. Darland and Ms. Kemble, about what I call "professional educators." It has always bothered me as a teacher that we had people that never had classroom experience come along and tell us how we should teach. That is why I must clearly agree what we need is a greater amount of teacher involvement.

However, I would like to point out, for example, in our, I am being provincial here, in our Wisconsin research and development center, that we have a considerable number of classroom teachers actually involved and I can't give the specific amount, but about 60 percent of the staff are those who have been classroom teachers and principals and superintendents and such and also I think there is something in reference to what Ms. Kemble said, that we do have few people going out contacting teachers and quite a few of the States, not all 50 of the States, so to get the input from the teachers, which I think it absolutely essential.

Ms. KEMBLE. I wonder if I could say two things. One, in terms of the whole teacher center idea, we have not proposed that they be

independent or that they not relate to school boards. What we fail to understand is a lack of willingness on the part of school boards to give professionals the opportunity to release their creative energies in a place that they really need for their own development. It is surprising that teacher education schools have not bothered school boards very much. It is well known that the whole in-service programs of many public school systems are notoriously stagnant. We just are looking for the opportunity to release teacher energy so that they can address themselves to the inservice problem. That is one question.

Second, in terms of the question of labs and centers and NIE involving teachers, there is a tremendous misunderstanding about the differences between using this or that individual who happens to have the tag "teacher" and pickling someone who is representative of the profession at large. This is a distinction which we find ourselves continuously having to reinforce. We believe that those people who are involved in the work of a public agency like NIE, or the labs which it funds, should be properly representative. It is easy for a lab, or somebody in the lab who has a pet program, to go out and find a teacher somewhere who will support that program and then use that tag as an indication that what that person says or does is broadly representative of teachers. We would really just like to be sure that NIE and labs understand our criticisms in this area and that you understand them too.

Mr. DARLAND. I think the issue even goes to rather a philosophical point related to the intrinsic motivation of people. Intrinsic motivation is the most powerful force on Earth I think, but we keep thwarting it in teachers because of what is imposed. Teachers are always having things done to and for them. Teaching is the only profession where experts impinge upon the general practitioners without the invitation of the general practitioner. We are not talking about the educational establishment per se, but about a developing professional establishment. We had organized schools in this country before we had an organized teaching profession.

In the case of medicine it was the opposite. Medicine brought their professional establishment with them to Western civilization and people accepted it and they ran the whole health establishment. This is now being challenged.

Mr. STEINHILBER. I would like to add one further comment and I would like to underscore one or two words we have in our statement, that is "teachers associations." Teachers associations cannot unilaterally determine the operation of teacher centers. Our position is not in opposition of teacher involvement.

Indeed, one of our basic concerns right now on teacher centers is that they have not been involved. Indeed, we would like to see a greater degree of involvement and we would like to see some different mechanisms to bring that into being. When I say "involvement" I do not mean merely naming some teacher to an advisory committee that will meet on the sixth Tuesday of every month, which means "never." I am talking about actual development. I think when we take a look to place into a Federal law, or at least Federal involvement, organizational structure which may exist in one particular area or another, outside of the general concept of the Government within a State, then I think we are going to have a little bit of concern.

Mr. DARLAND. May I say I think there are several definitions of what a teacher center is. We have tried to determine one. Those of us who represent teachers have, I believe some specific criteria.

Mr. CORNELL. Thank you.

Mr. BRADEMAS. I might add one point before we conclude. On the matter of involving to a greater extent, local school systems, I would hope that, Mr. Steinhilber, some attention could be given to the willingness on the part of local school boards to commit some resources to establishing whatever one wants to call the linkage mechanisms in order that there is somebody there that is really interested in research and dissemination.

Mr. STEINHILBER. Mr. Chairman, you hit a very sensitive spot within our association, because, while I can technically point back to policies that we have been fostering for 10 years now, each time we run into another financial crisis, that tends to be one of the first things that is dropped from the budget and, quite frankly, Mr. Chairman, I have no answer to that one at the current time except that we will keep trying.

Mr. DARLAND. May I say something about that?

Mr. BRADEMAS. Surely.

Mr. DARLAND. We have jobs at stake. There has to be some sort of mechanism built with differential kinds of financing built in for this to take place. That is why I say that the Federal Government needs to see to it that research is done on national priorities.

Mr. BRADEMAS. I want to thank you again for your thoughtful and illuminating testimony. Tomorrow we will hear from the Assistant Secretary of Health, Education and Welfare for Education, Mrs. Trotter, and from the Director of the National Institute of Education, Mr. Hodgkinson, and his associates as well as Carl Pforzheimer, member of the National Council, on Education Research.

[Whereupon, at 12:05 p.m., the committee recessed, to reconvene at 10:30 a.m., Thursday, November 6, 1975.]

NATIONAL INSTITUTE OF EDUCATION

THURSDAY, NOVEMBER 6, 1975

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SELECT EDUCATION
OF THE COMMITTEE ON EDUCATION AND LABOR,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room 2175, Rayburn House Office Building, Washington, D.C., the Hon. John Brademas (chairman of the subcommittee) presiding.

Members present: Representatives Brademas, Cornell, Hall, Quie, and Pressler.

Staff present: Jack G. Duncan, counsel; Patricia A. Watts, administrative assistant; Mike Cohan, staff assistant; and Christopher Cross, minority senior education consultant.

Mr. BRADEMAS. The Subcommittee on Select Education will come to order for purpose of further consideration of H.R. 5988, a bill to extend the authorization for the National Institute of Education.

The chairman wants to reiterate the appreciation that the members of the subcommittee feel for the testimony we have received over the past three days, and to observe that we have already heard from a number of experts in the field of educational research as well as from educational organizations representing in large measure consumers of such research at the national, State and local levels. The Chair is gratified that these several witnesses have nearly all expressed strong support for continuing the NIE.

We are pleased to have with us this morning four distinguished representatives of the administration: Carl H. Pforzheimer, member of the National Council on Educational Research; Virginia Trotter, Assistant Secretary for Education in the Department of Health, Education, and Welfare; accompanied by Harold Hodgkinson, director of the National Institute of Education; and Richard A. Hastings, Deputy Assistant Secretary for Legislation (Education).

You are all persons who have direct responsibility, in most instances, for the effectiveness of NIE, and we are therefore particularly pleased to have you with us.

We shall begin, I believe with Mr. Pforzheimer, an old friend of the Chair, and I am very pleased to welcome you to our hearings, Mr. Pforzheimer, this morning.

STATEMENT OF CARL H. PFORZHEIMER, MEMBER, NATIONAL COUNCIL ON EDUCATIONAL RESEARCH, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Mr. PFORZHEIMER. Thank you very much, Mr. Chairman, especially for this opportunity to appear before you as a member of the Executive Committee of the National Council on Educational Research on behalf of reauthorization for the National Institute of Education.

When he appeared before you on July 30, 1975, John E. Corbally, who is, as you know, chairman of the Council, presented the Council's full statement supporting NIE reauthorization. Since that statement is already part of the record of this hearing, I would like merely to emphasize several priorities which form the basis for the Council's current analysis of the present state of the Institute, and the Council's judgment about NIE's needs for the future.

The Nation needs a National Institute of Education to provide Federal leadership and support for the nation's research and development resources in the pursuit of an equal opportunity for an education of high quality for all citizens. We believe that research and development has contributed much to the progress of American education in the past, and that the Institute's current efforts, and those of allied agencies, are contributing now to the further advancement of the quality of education and availability of that education for all who seek it. Educational research and development activities in this country are becoming increasingly associated with responsible State and local agencies, and with responsible national professional associations, and other appropriate institutions.

The Institute's program is a national agenda derived from many sources. It includes expressions of State and local needs by policymakers, educators, researchers, as well as by educational associations which have counseled with NIE over the past 2 years. All of these have frequently participated in the development and assessment of individual NIE activities.

This committee, your committee, and other committees of the Congress have set forth the charter for the Institute, and during the past 3 years the appropriations process has continued to provide strong guidance to the Institute about its programs. When appearing before Mr. Flood and his colleagues of the House Appropriations Subcommittee on Labor, Health, Education, and Welfare, I noted the Council's deliberations had been focused on these congressional concerns.

The National Council on Educational Research believes that the Institute has been responsibe to the guidance it has received. As one coming from the financial community to education in various capacities at the State and National levels, I am particularly concerned with the attentiveness of Federal agencies in the field grappling with educational problems every day. I have seen great progress in the Institute's relationship with those in the field, and the Institute has received many testimonials to this improved relationship.

This brings me to my third point, Mr. Chairman.

In my opinion, stability and continuity within the Institute have been achieved. The Council has established program priorities which have, with some refinement, provided the essential framework for Institute planning and program activities since December 1973. This framework, and the activities now being conducted within the framework, provide continuity which is essential for productive research, development, and dissemination work.

Fundamentally, the Institute is not seeking to reinvent the wheel, but is building upon past research and development activities, as well as upon the advances made in classrooms by dedicated administrators and teachers. The Institute is working to encourage those educational agencies which are making progress in tackling their problems, and to stimulate those which have lagged, to utilize the Nation's many

capable resources in developing their own State and local problem-solving capabilities. Also, the Council is continuing to give priority attention to the strengths and merits of organizations conducting educational R. & D.

The continuity of programs is supported by a much-needed stability in the funding level of the Institute and it its administration, which is now under new and exceptionally able leadership. It is to be regretted that the budget levels of the Institute are lower than we all might hope. Nevertheless, the Council feels that it is important that the Institute has come to terms with these limited resources and has designed a fundamentally sound and promising program within those constraints.

In closing, Mr. Chairman, I would like to reiterate that the Nation needs a National Institute of Education; the Institute's program is a national agenda; and stability and continuity within NIE have been achieved. May I today once again thank this committee for its leadership in Federal policy for education in general and for its support of educational research and development over the years. I look forward to participating, within my competence, in this morning's deliberations. It is comforting to have Dr. Hodgkinson and members of his able staff nearby.

Thank you very much.

Mr. BRADEMAS. Thank you very much, Mr. Pforzheimer.

[Prepared statement of Hon. Carl H. Pforzheimer follows:]

PREPARED STATEMENT OF HON. CARL H. PFORZHEIMER, JR., MEMBER, NATIONAL COUNCIL ON EDUCATIONAL RESEARCH, NATIONAL INSTITUTE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Thank you, Mr. Chairman, for this opportunity to appear before you as a member of the executive committee of the National Council on Educational Research on behalf of reauthorization for the National Institute of Education.

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The Institute's program is a national agenda derived from many sources. It includes expressions of state and local needs by policy-makers, educators, researchers, as well as by educational associations which have counseled with NIE over the past two years. All of these have frequently participated in the development and assessment of individual NIE activities.

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appearing before Mr. Flood and his colleagues of the House Appropriations Sub-Committee on Labor, Health, Education and Welfare, I noted the Council's deliberations had been focused on these congressional concerns.

The National Council on Educational Research believes that the Institute has been responsive to the guidance it has received. As one coming from the financial community to education in various capacities at the state and national levels, I am particularly concerned with the attentiveness of federal agencies in the field grappling with educational problems every day. I have seen great progress in the Institute's relationship with those in the field; and the Institute has received many testimonials to this improved relationship.

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Fundamentally, the Institute is not seeking to reinvent the wheel, but is building upon past research and development activities, as well as upon the advances made in classrooms by dedicated administrators and teachers. The Institute is working to encourage those educational agencies which are making progress in tackling their problems, and to stimulate those which have lagged, to utilize the nation's many capable resources in developing their own state and local problem-solving capabilities; and the Council is continuing to give priority attention to the strengths and merits of organizations conducting educational R&D.

The continuity of programs is supported by a much-needed stability in the funding level of the Institute and in its administration, which is now under new and very able leadership. It is to be regretted that the budget levels of the Institute are lower than we all might hope. Nevertheless, the Council feels that it is important that the Institute has come to terms with these limited resources and has designed a fundamentally sound and promising program within those constraints.

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Mr. BRADEMAS. I would suggest, if agreeable with you, Mr. Pforzheimer, we go ahead to hear Mrs. Trotter and your associates, and then perhaps put questions to all of you.

Mrs. Trotter, we are very pleased to have you before us.

STATEMENT OF VIRGINIA TROTTER, ASSISTANT SECRETARY FOR EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, ACCOMPANIED BY HAROLD HODGKINSON, DIRECTOR, NATIONAL INSTITUTE OF EDUCATION; AND RICHARD A. HASTINGS, DEPUTY ASSISTANT SECRETARY FOR LEGISLATION

Mrs. TROTTER. I am very pleased to be here to continue the NIE hearings. I would like to reinforce my original testimony of July 30 which strongly urged the reauthorization of NIE.

I believe that NIE can be and is one of the most effective Federal agencies that we have in terms of providing answers to educators and policymakers. I believe that NIE produces a kind of research and demonstration that provides far more alternatives for change—ones that we need very badly. A strong Federal role in educational research is essential if we are going to be able to solve the kind of problems that we have in American education today and also guide us 10 and 20 years into the future.

NIE is organized so that we will have the kind of answers that we need, and it is very important to this country that we continue to have this kind of information available to American educators.

I will be glad, after Mr. Hodgkinson has supplemented his testimony of July 30, to answer any questions. Thank you.

[Prepared statement of Hon. Virginia Y. Trotter follows:]

PREPARED STATEMENT OF HON. VIRGINIA Y. TROTTER, ASSISTANT SECRETARY FOR EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

I welcome this opportunity to discuss with the subcommittee the reauthorization of the National Institute of Education.

As you know, NIE is the research and development arm of the Education Division in HEW. The Institute supports many exciting projects and studies and has already had a positive impact on improving American education.

I believe strongly that the Federal Government should support research and development in education in order to provide answers to the crucial questions facing educators and policymakers.

NIE delivers the kind of reserach and demonstration analysis that produces viable alternatives for Educational change. We must have this type of educational research and development if we are to have the most effective education system possible. Thus, NIE is essential to the Federal effort in education research and development.

When I came to Washington just over one year ago, I met with representatives of most of the major education associations. At that time, their attitude toward NIE was almost uniformly one of suspicion and distrust. Their feeling seemed to be that NIE was taking money away from their favorite concerns and using it on apparently useless research.

As Head of the Education Division, I am happy to report that this attitude has changed dramatically. Education groups are now much better informed about what NIE is doing. They have come to believe that NIE's efforts are focused on critical problems and are not designed to eliminate teachers or take away the prerogatives of school administrators. This changed attitude also stems, I believe, from the fact that the education groups now have a role in NIE's planning process. The Institute has actively sought their opinions and concerns on areas of needed research over the past year. Recently, a number of influential associations, including the Council of Chief State School Officers, the National School Boards Association, the National Council of State Legislators, and the American Council on Education have publicly expressed their support for the Institute's goal-oriented program.

For example, the Education Task Force of the National Conference of State Legislators said in a recent resolution that "NIE can grow into an invaluable resource for State legislators." The council of chief State School officers passed a resolution on NIE, declaring "There must be strong support for a vigorous Federal research, development, and dissemination program." And the Education Commission of the States, which represents the Governors, State legislators, and education policymakers of 45 States, passed a resolution on July 2 urging the Congress to reauthorize NIE through 1978. Such statements are indicative of the growing support for NIE within the Education community.

Following extensive communication and consultation with constituent groups, the following priority areas were determined and will occupy the efforts of NIE during the coming year: (*a*) Basic skills, (*b*) finance, productivity and management, (*c*) education equity, (*d*) education and work, and (*e*) dissemination. The director will discuss these priorities further during his presentation.

In this regard, we in the Education Division are pleased that the Institute now has an able and articulate new Director, Bud Hodgkinson. He is well known in the education community and meets regularly with Washington-based education groups in order to involve them in the Institute's decision-making process. His efforts, I am sure will generate even wider support for NIE and will help to insure that the Institute continues to be responsible to the needs and concerns of the education community.

To conclude, a strong Federal role in education research and development was seen as vital in 1972 when NIE was first authorized. I believe it is equally if not more important today. With leadership from the Director and policy direction from the National Council of Educational Research, the Institute will continue

to prove its effectiveness. It is the focal point of the Federal effort in education research and development. On behalf of the administration, I strongly urge its reauthorization.

Mr. BRADEMAS. Thank you very much.

Mr. Hodgkinson, we are very pleased now to hear from you, and I regret once again we had to postpone your complete testimony some months ago. We are happy to have you back today.

STATEMENT OF HAROLD HODGKINSON

Mr. HODGKINSON. Thank you, Mr. Chairman. With your permission, I would like to introduce the associate directors of the Institute, read a one-page statement, and make a brief presentation on the issues.

So, could we start with Emerson Elliott.

Mr. ELLIOTT. Emerson Elliott, Deputy Director of the Institute.

Mr. TUCKER. Marc Tucker, Acting Associate Director for School Capacity for Problem Solving.

Ms. RAIZEN. Senta Raizen, Associate Director for Dissemination of Resources.

Ms. RIEDER. Corinne Rieder, Associate Director for Education and Work.

Mr. SMITH. Marshall Smith, adviser to the Institute.

Mr. PORTER. Andrew Porter, Acting Associate Director for Basic Skills.

Mr. MELMED. Arthur Melmed, Associate Director for Finance, Productivity, and Management.

Mr. RUSSELL. Ernest Russell, Associate Director for Administration and Management, and Acting Associate Director for Educational Equity.

Mr. BRADEMAS. Thank you.

Mr. HODGKINSON. It is my hope during the question and answer period if there are questions you would like to ask of each of the Associate Directors that that would be acceptable.

Our mandate from the Congress 3 years ago was to improve American education through research, development and dissemination activities. Our funding level, although modest, has produced some important results, some of which are before you today, in the form of our product catalogue, which will list the 600 NIE products that are currently completed and in the field. One study revealed that 73 of these products have been used by more than 8.9 million teachers and students, a rather remarkable record for 3 years; 42 States have schools using over 21 of these products.

We are a small organization, relatively speaking. Resources devoted to education will approximate $116 billion this year in the United States, but we will spend far less than 1 percent on research and development. Agriculture spends about 14 percent on research and development, while medicine spends over 20 percent. Yet we feel that much good has already come of the investment Congress has made in NIE, and more will come in the future.

For the past 3 years, the staff has worked with programs that were 90 percent "inherited." We are delighted that so many of these have succeeded. But in the next fiscal year, we can begin to "do our own thing," including two new programs for building State capacity

for dissemination, a new effort in developing a better relationship between careers and education, a grants competition for research in the learning of basic skills, an institute for the analysis of teaching, new emphases in competency-based education, and a few others. The staff is excited about these new dimensions of our work, as are the practitioners and others whom we have consulted about them.

In addition to our five program areas described in my previous testimony, we are conscious of the overall themes of equality of opportunity, broadening the base of educational research participants, including more people and groups in our own planning, and the need for a variety of alternatives in education. My previous testimony covers where each program area has been and where it is going, and you have been given a summary of the program plans for each of these areas. In addition, several other developments need to be mentioned. We now have coherent program areas. We have an organization chart which has been given to you, and a staffing pattern which has remained constant at least since June, the beginnings of a planning operation, a management system that will make monitoring of grants and contracts more effective, and increased communication with the education community.

Many problems remain, but it is important for Congress to see the evidence that NIE can make a difference, and that it has made a difference. We hope to continue that effort with your concurrence and assistance.

If I can now, I would like to run very briefly through four areas which I think will indicate the ways in which research can have an impact on practice and on our thinking about educational problems. They are: population dynamics, research on learning, research on evaluation, and the new problems of the adult learner.

First of all, let's look at the overall question of where education has been and where it is going in this country, using these slides.

I think it is fair to say we had an aristocratic phase from about 1860 to 1910, as rough dates. There was little research done on education at this time because it didn't seem necessary. What seemed to matter was who your family was and what kind of institutions you went to. All of the existing studies of the leadership cadre in the country at that time indicated there was a high correlation between attending an elite institution and moving into elite positions in society.

The second phase is a meritocratic stage, roughly from 1910 to 1970. During this time research was used heavily by schools and colleges as they began to place strong emphasis on tests of selectivity to find out who were the meritorious, who could then become upwardly mobile through education and move into leadership positions. This is when we developed the National Talent Search and the National Merit Scholarships. These programs were based heavily on aptitude testing, and aptitude testing had a great deal to do with decisions about who would move ahead in American life and who would not.

From there, we moved toward something called an egalitarian stage. During this period, there is a decline in numbers generally, although it follows, as you know, a temporary increase in college freshmen in the country. There is a greater increase in the belief in educating everybody through their lives. Some people refer to it as "Educare," rather than "Medicare."

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There is much less interest in aptitude tests than in proficiency testing, and research is developing tests now that indicate what people can do and what they can demonstrate; not only what degrees they hold or how long they sat in classrooms.

First of all, on population dynamics, why are people so interested in adult education? One reason is that we are going to run out of 18-year-olds in 1980. This is not a hypothetical chart. These cohorts have already been born, and unless there is a change in the human gestation period, there is little likelihood the numbers will change.

As you see from that period, there will be an increase in that cohort, but by 1980, we start a sharp drive downward which has not yet been stopped.

The problem is even more important than that. If you look at population groups experiencing birth rate declines, you find that the declines have been heavy in the Caucasion sector and also heavy in the middle-class sectors of society. If you look at minority birth rates and birth rates for lower socioeconomic groups, you find they held constant, which means a larger proportion of the birth cohort comes from a non-Nordic group background, and a large cohort comes from lower economic background. In this particular data you see quite a shift. This data was prepared by the Office of Management and Budget, so you know it is accurate. It represents three different approaches to the problem.

The top line indicates the number of white 18-year-olds, and again you see that sharp escalation in 1980 I mentioned earlier. The second line indicates the number of black 18-year-olds, and you see a relatively stable pattern. The botttom line indicates the number of 18-year-olds or percentage that is black, and, as you can see, it goes from 12 to 18 percent in that particular diagram.

The policy implications of that research have not yet been faced by the education community, but the facts support the notion that a larger proportion of the conventionally aged people who go into post secondary education will be from minority group backgrounds and lower socioeconomic backgrounds. We have not yet worked out an answer in this country to what research has told us about this population shift.

We promise people that if you are involved in education we will make you wealthy. It is true that a college graduate makes more money than a high school graduate, but if you will look at it, you will see in 60 percent of the cases of income reported for that particular age level you cannot tell from the years of education what the income level will be.

If you want to look at another study of the same sort of thing, this is more recent, indicating high school graduates make less money than college graduates, but if you look at the increase in the mean salary from 1970 to 1972, you can see the high school graduates went up by $1,000 and college graduates went up by $420. I have data not yet reported which indicates that if you want to predict life-earnings you will do better with knowing whether or not a person belongs to an organized trade union than you will with knowing how many years of education he or she completed.

Part of this has led educators to feel that the public has lost faith in them, and to some extent it is true. But it is important to see that problem in the context of what has been happening with American faith in all kinds of institutions.

I deliberately got some pre-Watergate data to show what was going on in 1967. You can see there the decline in expressed faith in public social institutions in this country has been quite significant. The one exception has been the medical profession, which dropped from 73 to 61 percent. That is contrary to much of my experience, but there may be some reasons why people feel that on a public opinion poll it is wise to indicate you have faith in your doctor, because eventually you may have to support that faith.

Mr. QUIE. Why did you leave educators out of that?

Mr. HODGKINSON. We have another larger chart which I can show you on educators. The public school and college systems have declined a little bit less in public confidence than the legislative branches and State and Federal Government. I have a chart for California that will indicate that.

Let's look for a minute at some questions involving learning. This was an experiment done in a large class in introduction to natural science at a large State land-grant university. This course involves 1,400 students, is taught by sections, and the students are there because they are made to take the course. The faculty don't like to teach it, because they get no credit toward tenure for it. Each section of this course got a test each week, and no section got the same test any 2 weeks in a row. The tests were rotated across all of the sections, so that you got a rough idea of when during the semester learning took place emerged.

If you look at the learning curve for the course, you see that during the first 7 weeks nothing happened. The students were doing work in their courses in their major and doing courses that interested them and engaged in other activity which, after all, is part of the curriculum of undergraduate life.

In week 8, there was a mid-term, and it could only be described in this case as an "underwhelming" experience. Nobody learned much.

In week 10, however, all of the section heads said to all students: "If you don't get busy and start to work, you will flunk this course."

B. F. Skinner tells us that negative reinforcement never leads to learning, but we have living proof he is wrong, because from week 10 to week 15 the test scores shot up, so the mean at the end of the course was 68, and everybody thought it was fine.

Then the researchers said "68 of what?" And the faculty said, "68 of 100."

What is 100? Is it all of the material taught in the course?

No, it is only a small fraction of the material taught.

How do you know you got all of that material down into the right thing to score 100?

Then the discussions got a little heated.

What happened next was that the same students were followed 16 more weeks when they were no longer taking the course and were given weekly tests to see how long they retained the material they learned so painfully in the first semester. You will notice a sharp relationship between the falloff of the forgetting curve and the speed of the learning curve.

This is an important and useful device I think for policymakers. This course cost that particular State over $460,000 to give knowledge that stayed in the student's head for about 3 weeks.

When confronted with this fact, the faculty who taught the course—and incidentally relied on the course because it supplied them with their credit hour generation so they could teach their advanced seminars—said:

> Nevertheless, this course is essential for every American who will make literate decisions as a voter on questions of scientific policy.

Of course, if this is true, all national elections will have to be held between semesters, because that is the only time people know the material.

Let's look at another course. This one an elective course in philosophy of religion. It is small, and the students are there because they want to take it, the faculty like to teach it and are rewarded for it, which I think is part of the education research question. There are rewards in this course.

Notice the first week the learning curve is straight up, and the students come with some kind of intrinsic motivation. Again, the midterm does not seem to do much for them, and again, the 40 is not as high as the 100, but the 40 does not mean any more than the 68 did in the other one, because nobody knows what the universe is.

Notice what happens in the second semester, when students were no longer taking philosophy of religion. Their measured knowledge through weekly tests, of facts and analytical skills required in that discipline increased significantly.

"Impossible," we say. "How could it be? They are not taking a course in it."

We can demonstrate effectively that students learn a great deal of material without taking a course, and we can demonstrate to any authority that learning has taken place.

Now, let's look at a type of hypothetical learning curve, and think about them for a minute. When one starts to walk one keeps on walking, and generally you don't get hurt or threatened into being able to walk.

Talking, the same kind of thing—and some people have sort of an exponential curve that goes off the tip of the graph.

The reading curve is the same type of thing, when you learn to read you continue to do so.

But consider for a moment the geography of Brazil. When we were 10, most of us were experts on geography, knowing the imports, exports, capital cities, climates, the whole works, and I think it is fair to say the average adult has a fairly sharp learning and forgetting curve on that particular item. Also, division of fractions.

The kind of investment we make in getting that learning into students' heads is enormous in the United States, and there is little research done on what retention rates we get, what retention rates we ought to expect, and how we can improve the retention rates that we do have.

Here is another example. This is going to be a little hard to read, but I will go through it as quickly as I can.

This is a group of 12 second-grade students in a typical elementary school classroom in Utah, ranked in the first column according to their academic achievement.

If you look at the first column first, and knowing this about them in the second grade, you can make good predictions about where they

will end up. Students 1 through 7 will go to good colleges and universities that are selective, and students 8 through 14 will go to colleges or universities but go to less elite and prestigeous institutions, and 15 through 17 will probably go to a community college; but students 18 to 26 are clearly the dregs of the earth. They are people in the academic system who seemingly have no talent or aptitude.

If you look now at some other measures of human aptitude and achievement, creativity, planning, communicating, forecasting and decisionmaking, you will find our high academics do not do very well on these other areas that might be considered of importance to American life.

These are all talents which can be developed. We can develop curriculum around these areas, and we can evaluate them. Notice in several cases some of the best people in terms of their native creativity are in the bottom of their academic distribution, and some of the people who are good at forecasting, which means not only can you make forecasts but they turn out to be right, are in the bottom end of the academic distribution. Three of the best decisionmakers in this class are the three lowest in academic aptitude and achievement.

In my experience, one only has to chair one faculty meeting at a college or university before that bursts upon you.

This then indicates I think that there are many attributes that human beings possess which are trainable and important to American life now not getting through the academic sieve.

As a result of this kind of thing, the Supreme Court in *Griggs* v. *Duke Power*, which I considered a landmark decision, made the decision that tests and degrees cannot be used to discriminate against people as candidates for jobs unless those tests and degrees are demonstrably a good measure of job performance. Mr. Griggs after all wanted to be a maintenance man with Duke, and he was told he didn't have the right educational credentials and didn't rate high enough on a personal aptitude test. Mr. Griggs just wanted to sweep floors, and he said, "These do not relate to my sweeping floors, and it happens I am black, and that is why you discriminate," and thus the Supreme Court case.

Since that time, *Armstead* v. *Starkville District* was one case that involved a teacher in public school who did not possess a master's degree, and therefore was not given tenure. The issue involved whether or not the school had the right to dismiss her without a master's. The court maintained according to *Griggs*, the school system had to prove that people who had master's degrees taught better than people who didn't have master's degrees—and let me commend to your attention that it is a very tough case to prove.

This year a similar case will happen with a college professor without a Ph.D., who will be fired, and he will take the case to court on the grounds that the institution must prove that those with Ph.D.'s are superior as teachers and researchers and whatever the other criteria are.

So this notion of selecting for "merit," I think, has a pervasive effect on the educational system of credentialing and evaluating people for jobs.

A second consequence of this research is a lot of interest in what grades predict. We know that aptitude tests will predict grades in

college and that aptitude tests will predict grades in graduate school, but nobody knows what this whole cycle is like when the student enters what some students call the "afterlife"—the world of work, families, the real thing, so called. And, as a matter of fact, if you look at all of the evidence which has been around for a long time, grades in college don't predict any kind of success in later life, however you want to define success. If you define it educationally in terms of philanthropic activity, culture, art, gross income, anything else, and grades in college do not predict it. It is not the straight A students in medical school who become the most important physicians, and the same thing with law school and lawyers. So an important finding and one we have to deal with as an educational system is that our current way of evaluating people does not hold up in terms of what society is suggesting the virtues need to be.

Now, how do we go about evaluating people or institutions? There are only three questions you have to ask, and the first is the criterion question: What do we want to measure?

A lot of the competency-based programs in the country are now getting at that. The standards question is the most difficult. How high a level of performance ought we require of people before they are considered acceptable? The technique question, which used to be the one that held everybody up on evaluation, is null and void. If you know what you want to measure and what you consider success to be, there is probably a technique available to help you measure it, but those are questions that any institution asks of itself, of a faculty candidate for tenure, of a student in a course. There are only those three dimensions of evaluation.

Look for a minute at how hard it is on a simple competence like "Can a person change his tire or not?" We think it is easy. You can either do it or you can't. When you start isolating, you have to ask questions, "Does it mean any tire on any car? How about the use of equipment? Does the person have to repair leaks in the tires, or do they put on the spare even if it is flat"—which 50,000 Americans do every year.

How much time do you give them? A pit crew at Indianapolis takes 2 seconds. How about radial tires? And all of these are important aspects of what is really a complex art of tire changing. So when you begin to look at specific competencies, you find you run into complex performance questions, and they usually involve standards. "How much is enough?" And in tire changing it is measured by how much time you give a person to do it, because we tend to measure educational achievements by time, although speedy learning isn't necessarily best.

Now, the fourth question I would like to just raise briefly is the whole issue of adults now returning to education in huge numbers. There are about 13 million American adults who say that if they only had information on where educational resources were, they would get involved right now. There are 26 million adults who say with counseling and some information they would be interested in pursuing education in one way or another.

Of course, in 1972, one out of three American adults was engaged in some kind of activity. If you asked 30-year-olds how they see their life, you would find some very interesting things. They have more degrees than their parents did, and in terms of the quality of life

items that mattered to them on health, spouse and job, most of them were quite satisfied and considered that important. On raising children, 88 percent thought it was important, and they were basically satisfied. In developing a mature personal understanding of life, most of them thought it was important, and they were doing pretty well. On intellectual development however, 84 percent said it was important, and only 54 percent were satisfied.

That suggests with 30-year-olds there is a fairly predominant dissatisfaction in terms of educational training and intellectual development.

What were the problems? Vocational guidance for public schools and colleges was considered very inadequate for almost 90 percent of the males and 75 percent of the females. On quality of teaching every time a male mentioned something good a teacher did for him, another male mentioned something bad a teacher did for him or to him, so it balanced out. With women, our experience was they had a tendency to testify to more good than bad experiences from teachers.

For 32 percent of this whole thing, the personal importance of counseling was considered very important at some time in their educational experience, and it was not there. From K through 16 they had a need for a person to encourage them as a human being, and it did not happen.

We have learned a lot about how we can help adults into new kinds of career and skill identifications. We know, for example, there are skills in working with data, people and things. We know basically how we can measure each one of these items. They are quite transferable from one area to another, and they increase in difficulty as you go up the chart.

These things then can be measured right now rather effectively as long as people know how they want to use this information.

In addition, we know which factors predict job success. We can, with quite a bit of finality, indicate what people ought to do in terms of getting ready for a job, and how we can make sure that the fit is better between the educational experience and the job experience.

Notice that the kind of testing we do the most of in education—items 6 and 7—are those that have the least predictability in terms of job success.

Finally, we are just beginning to find out about how adults grow up. It is amazing that with all of the interest in adult development there are only four studies in the research literature of the patterns of adult development. They tend to indicate the following: That the first task of adulthood is leaving the family. Here we have the Army and college as ways of getting out.

Entering the adult world where you first start as a worker is the second stage. You develop a dream about yourself and you usually find a mentor, a mentor being an older person who helps you along and makes you legitimate in the occupation.

Then third you have the problem of settling down and moving up. When you have small children you want a home and roots, but also want to be successful, and it means moving at a moment's notice.

Then fourth you have mid-life transition, which I call "middlescense", ages 39 to 43, a period of heavy drug use, suicide attempts, alcoholism and divorce. It is a difficult time, because people are trying to reappraise who they are and where they go from there.

Re-stabilization occurs between 43 and 50, and those are happy times. People have more intrinsic interests and their marriages tend to work out better.

Then finishing up, about which we know little, except that many people are very unhappy between ages 55 and 65 because they have not done what they have wanted to and find themselves locked into positions from which they cannot change.

Now, in addition to the learners who are interested in regular instruction, it is important, too, to realize a lot of learners—and this is a national sample—are interested in noninstructional education services; 41 percent want to take a course, but notice that 31 percent want to assess their personal competencies for their won good and find out what is their growth potential; and 28 percent want tests in weakness and skills and subjects, not to get back into college, but for their own information. Notice 20 percent, a fifth of the American population, reported to a face-to-face interviewer in a carefully set up poll they felt a need for personal counseling.

So there are a lot of possibilities here in terms of noninstructional services, and from that knowledge and a research base the State of California is considering development of a system like this. No college or university can make all those facilities available. We are considering then a fourth sector with feeders which will get people to diagnostic centers and then agency referrals.

These are ways in which we can meet the needs that adults have which research has identified.

Now, let's look briefly at NIE in terms of where we are. Question No. 1: How big is the educational universe? This is a first cut at it. There is about 511 million from the Federal Government. Eight agencies, however, provide 87 percent of that amount. The States put in approximately $40 million into educational research development and dissemination and evaluation. Local communities put something like 4 million in.

In the private sector, the foundations provide $57 million, but 11 of those foundations provide 85 percent of the money.

Independents, proprietary institutions, and profitmaking industries contribute approximately $5 million, and that is not a terrible good figure. Overall, you come up with a best figure of $617 million, with the range—and the range is probably more important—somewhere between 500 and 790 million. That is the total expenditure dealing with educational research and development.

Mr. BRADEMAS. Could I interrupt at that point, Mr. Hodgkinson, to ask if the definition of educational research and development upon which this chart is based is identical with the educational research and development which is supported by the NIE?

Mr. HODGKINSON. The general way in which this was handled was to approach each agency and find out those specific areas of their budget which provided for any kind of inquiry into the nature of an educational event—was it successful?

The second way it was done was to look at ways in which products were moved out into the field.

Most [1] of the data on Federal support are based on information reported to the Office of Management and Budget and thus respond to a common definition, which is as follows:

"Includes all educational research, experimental and demonstration projects, curriculum development, dissemination of educational research and development results, and evaluation of program effectiveness. No distinction will be made between outlays for equipment, material, personnel, etc."

Thus defined, educational R&D is a very broad, heterogeneous domain. There are a number of reasons for believing that the data reported by different agencies may be comparable:

1. The OMB definition is not a formal definition, but a "definition by enumeration"; none of the terms to be included are defined. There is wide variation among agencies as to the interpretation of these terms. For example, the National Endowment for the Arts reports very little of its funds, the National Endowment for the Humanities, a major portion, while the nature of activities supported appears fairly similar from the perspective of educational R&D.

2. Outside of the Education Division most of the programs reported have primary goals other than education. For example, at NIMH research on mental health is primarily related to health goals, but is reported because it is also relevant to education.

3. The boundary between research and development and other forms of innovation is very hazy. Thus the office of Education sponsors a number of programs of local innovation (e.g. bilingual education) which probably would not have been reported as R&D a few years ago.

4. There is considerable variation in the *mix* of RDD&E activities sponsored by different agencies. For example, OE reports as R&D large amounts of money spent for the evaluation of the programs it administers; NIE does not administer comparable education programs and participates in the evaluation of such programs on only a limited basis. There are also major differences with respect to problems investigated: NIE has its own priority areas; OE still has major programs of research dealing with the handicapped and vocational education; NSF is concerned with science education, etc.

5. It is often difficult to separate R&D and operating components in large, complex programs, such as, for example, Follow Through. Thus, some operating funds may be contained in the estimates provided.

The third way was: "Do you attempt to evaluate any of the educational endeavors you are now involved with?"

So we took primarily those three questions and then went across the budgets of each agency.

Mr. BRADEMAS. Did they define the answers themselves, rather than NIE?

Mr. HODGKINSON. Most of the agencies have this information already so it was their definition; they didn't make it up just for us.

Mr. BRADEMAS. I won't press you on this now, and I don't know if it would be possible for you, without great pain and anguish, to come up with a more specific answer to my question; but for this chart to have real significance for the purposes of our inquiry into NIE here, it would be essential that we are talking about apples and apples, and not working with different definitions.

Mr. HODGKINSON. As far as I can tell, I assure the committee of the efforts of FICE, a Federal agency dealing with this, and we do now have common denominators for what we mean.

However, the chart you looked at has not been reassessed using those common denominators, and that is why I call it an estimate. If you look at the Department of Defense, for example, you have a very complex and sophisticated educational system. It is difficult to get it to report in a single set. So we have had a lot of problems with this; you are quite correct.

Mr. BRADEMAS. Thank you.

[1] About 15 percent of the Federal estimate was added by NIE to the information reported to OMB based on the examination of projects on file at the Science Information Exchange.

Mr. QUIE. Before you go on, would you consider that educational research as compared to agricultural research would be about 6 percent of the total?

Mr. HODGKINSON. You mean for the country as a whole?

Mr. QUIE. That is right.

Mr. HODGKINSON. Well, I would be—let's say you take $600 million, and we are spending $117 billion, yes.

Mr. QUIE. Yes; pretty close to 6 percent. I raised that question because in the testimony, you said we are spending less than 1 percent on research in education, and 14 per cent on research in agriculture, and 20 percent in medicine, so the figures that you use in agriculture and medicine I assume are not the percentage of the Federal share, are they?

Mr. HODGKINSON. No.

Mr. QUIE. It is the total, so 6 percent is probably right.

Mr. HODGKINSON. No. The other thing that has to be figured, however, when you assume certain kinds of product development that are counted here, you may be counting things which are not specifically Federal. This is why this FICE committee has to get agreement on what will be included.

Could we have that chart back again?

Now, my colleagues tell me that comes to 0.6 of 1 percent. If you take $600 million into $117 billion, you come out with 0.6.

Mr. BRADEMAS. That is therefore less.

Mr. QUIE. It is less than 1 percent.

Mr. BRADEMAS. It is fair then to assert with respect to even this chart, where we have already agreed that definitions of educational R. & D. are characterized by some degree of ambiguity——

Mr. HODGKINSON. Right.

Mr. BRADEMAS. Does that mean that even using that kind of definition, or the kinds of definitions used with this chart, that we are now spending in the United States less than 1 percent on educational research and development of the total spending, governmental, nongovernmental, on education?

Mr. HODGKINSON. That is correct.

Mr. BRADEMAS. Thank you.

Mr. HODGKINSON. Finally, where are we putting our money in terms of products we develop?

Given six basic areas of product development, which includes 661 of them, 35 percent of our products are in the basic skills area, which you would expect, I think, and 15 percent is in education and work, and 13 is in educational equity, and 12 is in educational personnel development, and 11 is in the "other" category, and 15 is in evaluation, management, and measurement. That gives a rough idea of where our product catalog will come down in terms of what is there.

This again is a handout which I believe has been given to you. It simply indicates the States that used the products by which kinds of numbers. As you can see, a fair number of States have made rather heavy use of these products, and again the pattern seems to emerge, I think, fairly heavily correlated with the existence of regional labs, as we pointed out the other day.

Thank you very much.

Mr. BRADEMAS. Thank you, Mr. Hodgkinson. It was a most interesting presentation.

I will now recognize Mr. Quie, who must soon go to another meeting.

Mr. QUIE. Thank you, Mr. Chairman. There is one question I wanted to ask you, Mr. Hodgkinson. In your work on dissemination, to what extent do you tie in the new venture, national diffusion network, a title III project?

Mr. HODGKINSON. I would like, if I can, to answer it briefly, and than ask Senta Raizen to respond, because she has a direct responsibility for that area, if appropriate. We have coordination with OE particularly in several points. One is a joint dissemination review panel in which every item to be sent out is evaluated very carefully and screened by a committee of OE and NIE representatives. We have this coming year two new programs in dissemination, and both quite distinct from the effort you referred to, and they have to do largely with capacity building grants of the States at the $120,000 level. We have given 10 of those this year, and in addition, 5 other grants to States for developing specific kinds of program capacities within the States, so that they can disseminate information out further than they are currently able to do.

On the specific question, because Senta will have that responsibility, I would like her to respond.

Ms. RAIZEN. As I understand the national diffusion network, it is a further step by the Office of Education to fulfill its legislative mission of being sure that the things it develops get to the educational community and that the educational community is informed about projects funded with OE funds in one way or another.

As you know, the responsibility of NIE is very much larger, which is to see to it that information about and the use of research and development outcomes and products, no matter from where they are generated, are available to the educational community and can be used by them. So I think there is a good fit between that and the Office of Education's attempt to move out from beyond merely evaluating their own work to actually having the educational community know about that work. I believe that the diffusion network is an attempt to do that. As I understand it, there is a 1-year effort to experiment with mechanisms for the Office of Education to do a better job than they feel they have to date in this area.

We are developing programs that have really three responsibilities, and they cut across NIE's own products, but also research and development that emanates from that $600 or $700 million worth of R. & D. investment in the country. That is, to develop information resource bases such as ERIC and others, and make these accessible through person-to-person links to all educators, and to build capacity within the system to take advantage of alternatives being made available; and, third, to focus on implementation of specific R. & D. products as chosen by local school systems and/or the States. So I think there is a very good fit between NIE and OE programs, and we are speaking to each other and are in touch.

Mr. QUIE. Are those three aspects your program?

Ms. RAIZEN. Yes. That is NIE's program.

Mr. QUIE. That sounds like the national diffusion network as well. They have, you know, gotten away from the impersonal nature of ERIC by having some individuals knowledgeable on the research. Are the same individuals in the States who are working as facilitators all

working in your projects? Are you talking about the same person doing both, or are there different people doing the same thing?

Ms. RAIZEN. It is hard for me to answer that for the following reason: In focused R. & D. experimentation that we, I hope, are going to launch very soon, we put in the hands of the States and local school systems the designation of who their extension agents are going to be. These agents will have available resources for training, for working with the school systems, for getting materials, and so on. In some cases these may indeed be the same people, but we are putting responsibility for saying "Who are the most effective agents for you" in the hands of the State and school systems.

I think the national diffusion network project works differently in that I believe it is in the hands of a laboratory, and the laboratory designates some of the people consulted. There may be an overlapping in some of the areas. The only thing I would like to say, even putting all the NIE and of resources together, you know, we are so thinly spread that I don't think it is going to be a question of overlap, but really a question of gaps.

Mr. QUIE. Now, the other question I have, of that $617 million of research that is going on out there, some of that has produced valuable programs which would be of benefit to a school. How can you provide that information to them?

Ms. RAIZEN. We have several mechanisms. One, again jointly with the Office of Education, there is a joint dissemination review panel. Before that panel come the products that are developed with funding either through OE or through NIE, but it is on a more or less voluntary basis. Submissions are usually those products where the developers feel they want to be eligible for further funding either through revenue-sharing or other funds that are made available by the Government for education. So that is one element of quality control, once products pass that review panel.

This is the very reason OE set up the diffusion network, because they really have no good mechanisms of moving these thing out once the quality control takes place through the review panel. That is what they are attempting to do now. The review is one thing the two two agencies are doing jointly.

The second thing I feel very strongly about is that the Government review activity has to be a variety of consumer information, not one of consumer housekeeping of providing a good seal of approval; that is, we are firmly convinced that not everything that is going to work in school system "x" is going to work in school system "y". Therefore, I think our job is to give as much information about what worked in school system "x", how it was done; what kinds of students; what kinds of teachers; so that school system "y" can decide: "Is this the right thing for us, or should we look at school system "z's" experience," and so on. So all of our information is aimed less at cutting out things, and more at giving information, so that a range of alternatives are available for the inspection of the people making decisions in education.

Mr. QUIE. The last question I have is about what we discussed before. What are you doing to make certain that the individuals that the school districts are in contact with will be looked on as grassroots individuals—someone they will emphazise with, rather than somebody from the Federal Government or somebody from the State government who is trying to foist something on them?

Ms. RAIZEN. Very important. One way we are trying to get at it, as I said earlier, is to have the states and the school systems designate those individuals, and not have us designate who is going to be the re-source person available to them. You tell us with whom you work; whether it is in the intermediate services agencies that many of the States have established; whether it is in the State departments of education; whether it is in the central school office staff; whether it is in the schools of education; or whether it is at the regional laboratories. You tell us the set of people whom you trust and whom you want to entrust that job to. That is one way.

The second way is that our grants and contracts are going to people charged with operating the system. They may be the States; they may be a collection of school systems; they may be individual big-city school systems. Then they subcontract with the R. & D. expertise that they need, so they are in charge and not the other way around—the R. & D. agencies pushing or the Federal Government pushing their products onto the school systems.

Mr. HODGKINSON. Mr. Quie, if I may, there is another program that deals with the question from a different strategic point of view, and if I could ask Marc Tucker to respond, you will have a fuller view.

Mr. TUCKER. Very briefly, our program was not set up to do research on dissemination, but much that we do is relevant to the concerns that Senta's program is directly directed to. We have a research activity among many others we are operating, aimed explicitly at technical assistance, how it might be best rendered, by whom, and what situations and by what kind of people, and what sort of relations to the people that are to be helped. In addition, a number of aspects of our program are looking at what we styled "informal networking," which gets directly at the question you asked, Mr. Quie, in that our observation is that people most often seek out help from people they know and whose values are close to their own, from whom they can most directly get help and whose help they can most rely on by virtue of their past experience. We are very interested in finding out about these patterns of informal networks between people and how people use them to get help they think they need, and to see how one can, how a thing might be developed in such a way to make these informal networks more useful, the networks the people already started in the field, to bring help to them at the local level.

Mr. QUIE. Thank you very much.

And thank you, Mr. Chairman.

Mr. BRADEMAS. Let me put some questions to you, and since I have a number, I will state them briefly, and maybe you can make your responses as pointed as possible and add to them subsequently if you would like to.

Mr. Pforzheimer, first let me ask you to answer, "How is the Council getting along with the Director?"

Mr. PFORZHEIMER. It is a pleasure to be able to put on the record, Mr. Chairman, we are getting along, in my opinion, sir, exceptionally well.

Mr. BRADEMAS. Mr. Hodgkinson, how do you feel you are getting along with the Council?

Mr. HODGKINSON. Ditto, sir.

Mr. BRADEMAS. Let me ask you this question, Mr. Pforzheimer, and Mr. Hodgkinson, you may both wish to comment on it:

In the September 18th resolutions, as I understand it, your Council asked the Director to identify two to four educational R. & D. institutions as national labs. In addition, the Council also indicated that other special relationships with R. & D. institutions were appropriate so long as such arrangements did not conflict with identification of two to four laboratories. Now, I take it from this resolution, if I understand it right, that the Council is, in effect, advocating a mix of local, regional and national labs and centers. I wonder if you could comment on the rationale behind this mix, and tell the subcommittee if it is contemplated that there be a set of relationships among these several institutions of which the relationships have to do in some way with meeting the problems of educational R. & D.? If my question is clear—in other words, what is the relationship between the mix of institutions that you are suggesting and the problems out there, as it were, in educational R. & D.? I would be grateful if both you and Mr. Hodgkinson will comment on it.

Mr. PFORZHEIMER. Let me hit it perhaps first in one way, Mr. Chairman. It seems to me there are three parts in a broad spectrum, which I will take account of. First, you have the direct relationship between NIE and those labs and centers the Government has been working with and with whom NIE will continue to work because of the products that are needed specifically to meet some of the presently established priorities of NIE itself.

Then you have efforts involving the State educational agencies to the extent we can encourage them through use of matching some State moneys going into efforts between the State agencies and labs and centers and other research institutions' facilities within a region. They would work out together some possible solutions applying research and development; then States are also deeply involved in dissemination to meet the problems that are within their jurisdiction or somewhat regional.

Finally, as has been indicated, there is a potential in certain of the larger local school districts of having a direct liaison between those districts and those labs and centers and other educational research institutions which can produce for them the kind of product that can be disseminated to meet their particular local needs.

Now, that is the kind of mix I saw at the time of the Council discussion which led to the somewhat, as you indicate, stark language of the resolution. The Council expects the Institute to plan for the identification, establishment, implementation and continued coordination of institutional relationships.

With that framework, Mr. Hodgkinson can go further into detail.

Mr. HODGKINSON. The position the administration has taken rather strongly within the Institute is that we need a variety of models of excellence which can then be emulated by the other institutions and agencies of that particular category. It is an expanding universe, as far as people doing educational research and development are concerned.

In addition to national laboratories, therefore, we feel strongly there should be an identification of the best public school system in the country in terms of its evaluation component. Dallas and Minneapolis, for example, have very very good quality staffs in terms of

programmatic evaluation. They can do as well as most university faculties can in the area. Therefore, what we are trying to do is develop a series of models that will be made publicly visible, so what they do can be at least tried out or attempted by other kinds of school systems, States or whatever. There is a strong feeling on the part of NCER that we did need a couple of national centers which would serve a somewhat different function than the regional functions that have been performed I think excellently in this country by several of the regional labs.

It is also important to mention that some of our regional laboratory materials, for example, the SEDL materials developed on bilingualism, are used initially and created by a regional lab. but it does not mean they can't be used nationally. So we are seeking an array of institutions of genuine quality to be held up as models for the rest of the country as research and development systems develop at the local and State levels.

Mr. BRADEMAS. Mr. Pforzheimer, one other question in respect to the manner of operation of the council, which I think here needs to be reiterated, is as policymaking body and not simply advisory only. It has been suggested by some of the witnesses, your council should have an independent staff in order that you not have to rely totally on the staff of the Institute. I am not sure indeed you now do it, but I assume you probably must be in touch with the staff of the Institute in some respects, and I should have thought it is quite appropriate; but what is your comment on suggestions that you should have at least a modicum of staff of your own?

Mr. PFORZHEIMER. This is not a question on which the council has voted formally, although it was discussed among groups of council members and also at a meeting of the whole council. In general we are opposed to having any independent staff of our own. I would be personally very much opposed to having any such staff for several reasons. Perhaps the most important is in the experience of educational institutions which I have either been involved with directly or heard a good deal about; if a policymaking group, has a staff of its own, it is almost inevitable that such independent staff gets itself into an adversary position with the staffs of the institutions that the group is supposed to be setting policy for, and this is most unfortunate and counterproductive.

Second, it seems to me that a group like ours, meeting as we do on a formal basis every 2 months, with complete access to the various staff people, all of whom are sitting behind me here and one or two others, as well as the Director and Deputy Director, can ask the direct questions ourselves and get the direct answers that they give us. If we are dissatisfied with their remarks, and this is important, there are a number of means whereby we can dig further, using the NIE staff most familiar with it by asking further and I hope more penetrating questions.

It should also be noted that at the request of the council, the Director has assigned a senior staff member, and some supporting staff, to provide information, advice, and assistance in a manner directly responsive to the council. The position description, and the individual, were officially accepted by the council. The staff provide a continuous opportunity for the council's concerns to be part of executive discussions.

So in all I think we are now being very well served because of this mode of operation.

Mr. BRADEMAS. I appreciate that response. I would be less than candid if I did not tell you I am not altogether overwhelmed by it. Maybe it is because I am a Member of Congress who was brought up on the Founding Fathers' proposition that "A little adversary relationship is very healthy for a situation." But I won't belabor the point—unless you want to make another comment?

Mr. PFORZHEIMER. I just want to say that perhaps I didn't follow through as I should, and you are perfectly right with that comment. Yes; the adversary relationships are often the most productive as such. I am trying to say that I believe that the adversary relationship which from time to time has existed has been healthy because it is between members of the council directly and responsible members of NIE's staff.

Mr. HODGKINSON. Could I comment that the national council is now organized in three subcommittees, and I am not sure this subcommittee is aware of this. There is an executive committee of the council, as well as a program evaluation committee and a committee that prepares the annual report of NCER. We found that through their committee structure we are able to engage in very very open and hardnosed dialog on issues of concern.

Mr. BRADEMAS. Mr. Hodgkinson, you have been in the hearings. You have been in the hearing room during the last several days, and you heard a number of concerns expressed by witnesses about the work of the Institute, including alleged lack of responsiveness to the concerns of schoolteachers, women, minorities, ethnic minorities, LEA's, and SEA's, and the funding of national laboratories versus other research and development relationships, the need for an increased authorization, the need for a longer period of authorization. Would you like to have at any or all of those questions?

Mr. HODGKINSON. I would like to have at them all, but we don't have that much time. There are several comments I thought were interesting in that regard. First of all, in terms of the projects we are doing in the area of women's studies, it is true that the budget is not going up astronomically, although it is our hope in fiscal 1977 that any funding level over $70 million we will put up to a $3 million increase in that particular program. I would like to mention that we have four projects that have been unusually successful in that particular area. One is the sex bias and sex fairness in career interest inventories, which started with a conference and developed into a publication. Over 5,000 copies were distributed, and the American Psychological Association used our guidelines on career interest inventories to revise these standard forms.

The second is a learning kit for guidance counselors on sex fairness counseling, and here again it has been heavily field tested and shown to be extremely useful.

The third is a film called "Girls at 12," and this film is very effective in pointing out the socialization factors at work that limit women's horizons as far as occupational and other aspirations are concerned. It had over 200 showings and won several awards.

Finally, the representative from the Federation of Organizations for Professional Women indicated that minority conferences had not been planned, and especially those dealing with women. We have four con-

ferences set up, and they will take place dealing specifically with the problems of minority women. I couldn't agree more that this is a particularly important problem. These four conferences are being planned by a group which is totally minority women, and each of the four conferences will deal with one particular theme in their areas of concern. The first will be held within the next 2 months, and all will be held between now and spring, 1976.

I could relate to some of the other questions, but I think I would prefer, if I may, to deal with some of the matters that were of concern to members of the committee.

Mr. BRADEMAS. What about the matter of a longer authorization period?

Mr. HODGKINSON. I think it is an important area to consider as far as the staff is concerned. When I came to NIE, the impression I got generally was of an institution that was located on top of the San Andreas Fault. One sensed tremors in the earth every 3 minutes. The degree to which it could be interpreted as an indication of the confidence of the Congress in what we are doing, a longer authorization would be obviously advantageous; but on the other hand, it is irresponsible with no mechanism for reporting back to Congress and Congress reporting to us on a regular basis as to what has been going on so we could produce midcourse correction along the way. Three years would be the minimum in terms of that.

I would like Mr. Pforzheimer's view, if he is willing to add to that.

Mr. PFORZHEIMER. You have been kind enough to put John Corbally's statement directly in the hearing record also, but to refer back to one specific note he made at the time, he said, "The authorization should be without a termination date, because the challenges to education and the legitimacy of the Federal role in helping to meet these challenges will not terminate."

He went on to say, and this is most significant, "Biannual oversight hearings and the annual appropriations reviews will give the Institute the benefit of congressional guidance."

And I think personally this is extremely important, and I welcome the opportunity to reinsert that statement again at this point in the record.

Mr. BRADEMAS. All right.

Mr. Hodgkinson, what about your relationships at NIE with other research efforts being carried out within OE?

Mr. HODGKINSON. We have a number of ways of coordinating with the various agencies that are doing work in OE, and again, if I may, I would like to refer to several associate directors engaged heavily in that area. There is a big education and work program, for example, in OE. There is a large dissemination effort in OE, and there is vocational education and handicapped research and development going on with the Office of Education.

We have both formal and informal mechanisms for dealing with this, and I think it is quite important to realize we do both. I would estimate that on any given day, there are between 10 and 20 phone calls that go between NIE and the U.S. Office of Education. These are primarily personal contacts. That is, we know the people over there who are responsible for corresponding programs.

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Let me, if I may, ask Corinne Rieder if she will talk for a minute about how the coordination takes place between our education and work program, and the similar programs in OE.

Ms. RIEDER. Let me give an example. Our experience-based career education program, which is an alternative high school program, will be implemented through part D vocational education funds during the coming year. In addition, they have suggested to us a number of studies, such as looking at the question of measurement as it relates to vocational education programs, and this is part of our fiscal year 1976 activities. There is a good deal of, I think, coordination and cooperation back and forth between the two agencies, clearly in the education and work area.

Mr. BRADEMAS. Thank you.

Mr. Hodgkinson, I will put two quick questions to you, and then turn to Mr. Cornell.

What is your reaction to the suggestion that some have made in the future NIE should be restructed into separate units, each with, perhaps each focused on a different level of education? I am not sure that was Mr. Krathwohl's proposal, but he was talking about different institutes down the road.

Mr. HODGKINSON. Let me answer in two ways. No. 1, the problems of educational research do not end with a given grade level. I think several of the witnesses, Mr. Cronin and others, supported that view. We have between 3 and 8 million American adults who are illiterate. Therefore, the basic skills program which teaches people to read cannot make the assumption that their only concern is for people between ages zero and 8 who do not know how to read, because there are Americans of all ages who do not know how to read.

Similarly, as you go across educational careers, you find it is a problem throughout life. We now know that 3- and 4-year-olds are doing serious thinking about careers, and continue it until they are 65 or whatever. So for many of our problem areas, we do not find that age grading is the most useful way of defining when a problem stops.

To answer the question another way, and this gets, I think, into the other question that has been raised about vocational education and handicapped legislation, in 1972 Congress made a critical policy decision, and that decision separated NIE, which was research development and dissemination, from OE. OE was supposed to be operational support for school systems and student assistance. That decision was, I think, the right one to make. It reflected an important distinction in the roles of the two agencies, and it gave a proper stature to the Federal responsibility for leadership in education through support of R. & D. This moved toward better coordination of research, and it recognized the need to link research with development and dissemination. In other words, in 1972 it seems at least to me it was an excellent decision to make.

Despite that decision, for reasons I am too new in Washington to understand, the Congress did not give NIE a full and unambiguous role. Vocational education legislation and handicapped research is now vested in the Commissioner. "Follow-Through" research and development is vested in the Secretary NCES is a separate agency. Several statutes provide dissemination authorizations for various OE programs, and finally the new policy centers are supported by ASE, which are engaged in policy-related research. So there may be management

problems for NIE if all of these activities were transferred now into our aegis. We would be willing to take such a mission if it were Congress' will, but at the moment it seems to us the management problems might be quite severe.

For example, some of the activities such as vocational research and "Follow-Through" are almost as large as the whole Institute. There would be questions of "who is involved with whom?"

But the direction the Congress took in 1972 to bring together evaluation, research, development, and dissemination, that direction is as correct now as it was in 1972. If the Congress chooses to implement that policy more fully through additional transfers, the Institute would obviously enthusiastically carry out such a directive to strengthen R. & D. My feeling, however, is Mr. Cronin's assessment the other day is one I would personally support, and that is the next time Congress regularly reviews vocational education and handicapped legislation about 2 or 3 years from now, it would be an excellent time to reappraise the situation. When NIE has had a chance to stabilize itself, then we would know from internal evaluation what we are doing and what we will be capable of handling in terms of additional responsibilities, and I suggest Mr. Cronin's position is an admirable one.

Mr. BRADEMAS. Mr. Pforzheimer.

Mr. PFORZHEIMER. Could I add a footnote? I would like to emphasize the fact that of course programs for vocational education and education for the handicapped and the whole question of training and renewal efforts by so many people go on in various agencies. We have found from direct experience that many people are concerned about articulation between levels of schooling. A paper was put out by the Board of Regents of New York State on goals and objectives in New York State, and it is one of the most sought-out little booklets we have produced. There is a policy paper of the Board of Regents, the number of which I forget, entitled "Integration of Elementary and Secondary Education with Higher Professional Education," which has been the most popular of all of our recent policy papers.

I think this is a very indicative thing, because it shows that this sort of concern will be continuing, rather than having a specific niche in which to sit.

Mr. BRADEMAS. I have one further question, and that is to ask your comment on the present pool, Mr. Hodgkinson, of the research development personnel in the field of education in the United States, and what you see is the role of the NIE in respect of developing a wider pool, particularly in light of the testimony of the witnesses earlier this week, where we heard at least some witnesses urge that State and local educational consumers ought to have a degree of knowledgeable in-house capacity for linking up to what you are supporting out across the country.

Mr. HODGKINSON. This is a slightly complex question because of the history that is involved. The Campbell report, which I believe you all have had a chance to look at, indicates the difficulties in terms of staffing educational research and development efforts. Most of their judgments were based on a book which I don't believe you have, but I will be glad to share with you, and it is the first attempt to look at the status of educational research and development in the United States—who is doing it, and what are the people who are doing it like,

and where were they trained, and what disciplines they came from—and overwhelmingly it is from psychology and schools of education, and within psychology most of them are psychometricians—that's test-makers—and so forth. So part of the job is still charting this universe of people in the field. The next step, it seems to me, is to determine the training needs which now exist. This is where the problem gets complicated.

We have had a history in this country of attempts to do precisely that. Most of the land grant universities chartered under the Morrill Act had within their schools of education laboratory schools. Lab schools had several missions, one of which was to help the new teacher accustom himself or herself to the pedagogical role in a setting which the university still had some control over. Also it was possible to do some research and development within that lab school setting.

The lab schools have not proved, I think, to be the only model that will be useful for training people to do research at the local level. There was in the 1950's an "action research" movement in education, and the action research movement that came primarily out of the Teachers' College at Columbia University was designed to help make sure that every teacher who got a teaching certificate also knew how to do research; thus you had action and research put together in the hands of the individual teacher and individual practitioner. That movement has faded also, although it may be coming back.

One of the things we don't know and are working on at the moment is the kind of training needs that the local teacher would have to have in order to become competent in doing research. An additional question is, and it is the one that has been raised by several people thus far, if you have 2 million teachers in the United States investigating a problem that has already been investigated nationally, and you find there is not any difference across the country on that particular item, you have wasted an enormous number of man-hours. We have to decide which problems are coherent enough so that they should be handled nationally and which problem ought to be handled locally, because there is so much diversity in different communities. The kind of area—where should educational research be done—because of the variations in expected responses or expected results, is one of the difficulties.

I might just mention too, we have several things going in this area which we think are quite important with the American Sociological Association. For example, we have a program for training minority researchers, and in addition, at the American Education Association conference this year we hope to be meeting with minority researchers who now have a doctorate but are not yet into the field and not publishing and consulting and they are not visible, and it is our hope in an afternoon session we can help.

We would also like more minority researchers at the doctoral level to do their dissertation work at NIE. We have a large base there, and there is enough for 500 dissertations. It would be useful for them and us to have that kind of partnership, so we are doing work on it within our own shop.

Mr. BRADEMAS. Thank you very much indeed.

Mr. Cornell.

Mr. CORNELL. Thank you, Mr. Chairman.

My colleague, the distinguished U.S. Congresswoman from New York, Ms. Chisholm, was sorry she couldn't be here this morning. She intended to come, but was called away on a matter I heard referred to as the "New York financial crisis." But she did have some questions, and some of these I think you can just supply for the record.

First of all, she said:

I want to thank you for the materials you sent to my office on the NIE staffing profiles with regard to race, sex and national origin. As you know, I am interested in the same information with regard to labs and centers and all other groups which have NIE contracts. We would like that information as part of the hearing record, if you could supply that information for the record.

Mr. HODGKINSON. Yes; we can supply most of it. The problem gets complex when we issue a contract that has three or four subcontracts within it, because that information is not always trackable. We can supply it for our major contractors, and I have already spoken to Mrs. Chisholm, and I gather that is acceptable.

Mr. CORNELL. Right. As you have heard mentioned in committee, women and minority researchers tend to be affiliated with colleges and universities in smaller research projects. I would like your reaction to the suggestion that we might be able to increase the participation of women and minorities by encouraging the subcontracting of certain aspects of NIE's larger research projects to these smaller firms and individuals? What is your view as to the pros and cons of this suggestion?

Mr. HODGKINSON. I am in favor of it, partly because I discussed it with Mrs. Chisholm in a meeting we had 2 months ago in her office. It seemed to me then and now that there are a number of excellent, what I call "storefront research" operations that are in a local community. They have the support of local communities, and therefore, you are not subject to the same kind of resistance that you are subjected to if, for example, a census taker comes into a given ethnic minority dominated community. Characteristically the census taker is viewed not as a neutral, but as a hostile outsider, looking for dangerous information. So the use of storefront kinds of research operations it seems to me to be an excellent idea.

There are some problems with these. First of all, they come and go with astonishing rapidity, partly because of lack of continuing funding, and partly because their respectability comes from the fact they are on a little less affluent side, and if they are more affluent, they might not be able to work better in a community setting.

I do think we have to use these kinds of operations, and in addition, to begin training cadres of people to do some simple kinds of research. You can go all the way from very elaborate and complex research models to very simple kinds of things. In many communities we can do a great deal of these. Teacher aides, for example, in a school can do very interesting kinds of research on the basis of 1 weeks' training. So that some kinds of research tasks may not take a great deal of training at all.

Mr. CORNELL. The next question has several parts. I believe you have already responded to some extent in reference to a question put to you by the chairman. She said: "I would also like your response to the suggestion which Dr. Janet Brown made in her testimony. 1. A suggestion of the increase in budget allocation for women's programs,

and she said they stand at 2.5 percent of the total budget." I believe you referred earlier to this.

Mr. HODGKINSON. I earlier referred to the increase, and also to four programs that we are currently completing which I think indicates some commitment and success.

Mr. CORNELL. I recall if the budget went over $70 million you were earmarking money for that purpose.

Mr. HODGKINSON. Yes.

Mr. CORNELL. The next question: "Since there is currently only one woman on the advisory council, should NIE provide an ad hoc advisers committee for women's organizations to make recommendations in this area?"

Mr. HODGKINSON. There are several aspects of that point I would like to make now.

First, the comment was made that at the conference on teaching of mathematics, 30 papers were commissioned, and no paper dealt with the specific problems of women's learning of mathematics. The facts are that a quarter of the participants at the conference were female, and those 30 papers came from the conference participants themselves. If a quarter of the participants who were there writing those 30 papers dealt with the problems as they saw them, we felt that that was in a way an unfair accusation to make of a conference that went out of its way to make sure women and minorities were accurately represented in that particular field.

On that one issue, I don't think it is reasonable to accuse that conference of trying to keep either women's issues or minority issues out of the whole area of the teaching of mathematics.

If you look at the people who have been brought into NIE to consult with us about our 1977 program plan, and several other consultations that we have held, I think you will find that the representation of women and minorities has been more than adequate. For example, 50 institutions with Washington-based affiliation came to a meeting that we had about 2 months ago on our 1977 program plan. We deliberately invited 14 organizations within the Washington area that represented women and that represented ethnic groups in the area and that have a national constituency base to that meeting. So that whenever we asked for people coming in from outside, we have not just found an individual who happened to be either black or female, but we have looked to the national leadership groups and have asked them to represent themselves and come to those particular sessions.

Mr. CORNELL. The third suggestion was: "The training programs be conducted with NIE personnel to sharpen the staffs in detecting and dealing with sexism in educational research projects."

Mr. HODGKINSON. We have engaged in one effort in this regard, and there is more that we can do. But we did have a fairly extensive training effort for people at the program and project level, to increase their sensitivity to problems that women and minorities may have.

Mr. CORNELL. The next one: "The requirement of an impact statement from labs and centers which would have the effect of protecting each project review, its assumptions, staffing and materials from sex bias."

Mr. HODGKINSON. In the boilerplate of each contract, the boilerplate is just the heavy stuff on the outside, there is a specific state-

ment that one must abide by and have an affirmative action plan at that institution, and one must also certify that the running of the place is done in accordance with those principles of equal opportunity. It is primarily that kind of information we now possess, and therefore, we have not thus far asked of each contractor to list all employees with sex and ethnic heritage written in.

Mr. CORNELL. Also, she would like to know when the staff report that was mentioned evaluating the extent to which NIE has met its obligation to acheive the goal of educational equality will be released to the public.

Mr. HODGKINSON. This is a matter of particular concern to me, sir, because that report was finished 6 months ago. It was entirely for in-house distribution. It has, however, been given to anybody outside who requested it. The report is available in my office today, and anybody who would like it may have a copy.

Mr. CORNELL. Finally, a question she put the other day: "We all want good labs and centers to continue to expand, but I feel the earmarking of such a large portion of NIE's budget for those labs and centers is inhibiting and denies flexibility in funding." She asks, "Don't you agree it would provide for greater flexibility if we dropped or reduced such earmarking?"

Mr. HODGKINSON. This is an area I would like Mr. Pforzheimer to comment on, and perhaps Dr. Trotter, if she would. I have several points of view on that matter.

Since I came to NIE, we worked very hard to create a cooperative relationship with the labs and centers, even though we had to reduce their total budget, doing so in such a way that we tried to guarantee the survival of each one of them, so that during this year we could work with them to figure out a coherent program for the laboratories and centers in terms of how they work.

One of the points that was raised in the testimony the other day had to do with the difference between a laboratory and a center. But I would like to assure you that the difference within that whole range is equally important. Labs are not all alike, they are very different, and centers are not all alike, so looking at it only as labs versus centers is to miss the diversity that is really there. We have thus far I think worked out an effective way of cooperating, and I hope that we can do more of this sort of thing. I arranged a meeting in St. Louis a month and a half ago with directors of all of the labs and centers, and we spent a full day discussing our various problems. We are now prepared to deal cooperatively on issus of the following sort:

How can we best monitor projects within a lab so we can understand more, not only about the project, but about the lab itself? How can the labs participte meaningfully in this review which the National Council has asked us to engage in?

So in many respects we are able I think to work cooperatively with the labs, and I am looking forward very much to a period during this next year when, for the first time, we may be able to talk to each other openly about how we can improve our process. The specific item of the earmarking has been an item of concern I think for everybody. That is partly because it has to be a somewhat arbitrary figure and can't be based on research. And as a teacher for 20 years and a researcher for 11, I don't like to make decisions on the basis of a somewhat arbitrary number.

I wonder if I might ask Mr. Pforzheimer and Dr. Trotter to respond.

Mrs. TROTTER. Mr. Chairman, we want to do everything we can to work effectively with the labs and centers, because they are an important part of our total operation. A research institute or research program has to have flexibility in order to address the kinds of problems that are current or seem appropriate for American education, but inflexible earmarking makes it difficult to take an unbiased and objective view of the total program.

We want to work this out to provide the most effective method of setting our priorities and goals. Without a doubt, I think that Dr. Hodgkinson, the Council and the whole institute have done a very good job of doing this within the confines of where we can go. Our concern is that we have the ability to make the decisions that are the best decisions, based upon the kind of background that is important to make them.

I think, Mr. Pforzheimer, you may want to say something in addition to this, but I would like to reiterate the fact that flexibility is important, and we are concerned that we address the issues that need to be addressed in the best possible way. Certainly, the labs and centers are one of the ways that this is done.

Mr. CORNELL. I have two rather brief questions of my own, but go ahead.

Mr. PFORZHEIMER. I would like to add one bit here from the point of view of the business community programs which I have been in all my life. It has certainly been the experience in many states that when you have earmarking, for example, of the taxes, the mores of people change, and therefore the amount of taxes they put into a system changes. Sometimes the purposes for which the earmarking was aimed, grow and require a good deal more than comes out of the taxes, or, conversely, the tax may pile up because it was earmarked and the purposes for which it was originally earmarked are no longer useful to the citizenry of that State.

If you turn it around, I think you would find especially with an appropriation constraint of only $80 million we need the greatest possible flexibility in operating the Institute, and I do feel that earmarking is also an inhibitory factor as far as the policymaking initiative of the National Council on Educational Research is concerned. So the Council is against any earmarking of an appropriation and I am personally very much against it.

Mr. CORNELL. I have one other question here. Were the original legislative directives too broad, and has this caused the priorities at NIE to be directed too widely, Dr. Hodgkinson?

Mr. HODGKINSON. I think probably the answer to that is no. We find that the program priorities we now have and which are specified in the legislation we are considering today are broad enough so that we can include a number of areas of research, and yet give them a focus, give them a home.

Let me give you an example. We are interested peripherally in research in the arts and humanities, and also interested peripherally in citizenship education, because they are two important areas of education, and are matters that come up all the time. Existing research on programs in arts education for young children indicates there is a very high potential for increased ability in learning to read for children who have been early subjected to an exciting experience with words.

I just mention that in relation to the film produced by Cemrel, one of our laboratories, called "How Does a Rainbow Feel?"

A month ago I was pleased to go to New York to Lincoln Center and assist in the acceptance of the San Francisco Film Award for the best educational film in its class during this past year. Children who see that film surprisingly enough have a greater interest in words because the film indicates what you can do with words and how much fun it is. There are some Cemrel materials that go with it; thus the basic skills unit which has to do with teaching people how to read benefit from the research gained in that peripheral area.

So the area of limitation within each of our program areas is broad enough so that we can bring in a number of significant research findings into those particular concerns.

Mr. CORNELL. I know you wouldn't want this hearing to go by without this last question: How has the decreased level of funding affected the performance of NIE?

Mr. HODGKINSON. I just must say one thing for the record and that is, I have worked in I guess 8 or 10 college and university settings, and I have had a rather bizarre range of employment of my own in terms of having been everything you can be from a pin setter and busboy to a college dean. This present staff is an unusually resilient and loyal group of people, and I think that one of the answers to the question is their ability to regroup; after we have redone the budget for the 10th time, and try once more to get it right for the 11th set of new conditions.

I can only answer the question I think by saying that it has been difficult. We understand, on the other hand, the reasons for continually asking for new kinds of information about budgetary matters, and we are willing to do this. It does seem to me, however, in relation to previous testimony, that whatever the budget level Congress decides on, it would be nice if we could do some forward planning. We now have a management system in place, that will help us to do that. We know some of the consequences of our activities on the present and the future, and thus for the first time we can begin to plan. And I have had enough experiences with organizations to know when they can and when they can't. I think the NIE is now ready to begin some planning, but it cannot be done unless we have some kind of notion of what a likely appropriation figure will be.

[Summary of testimony and prepared statement of Harold L. Hodgkinson follows:]

SUMMARY OF TESTIMONY DELIVERED BY HON. HAROLD L. HODGKINSON

Our mandate from the Congress 3 years ago was to improve American education through research, development and dissemination activities. Our funding level, although modest, has produced some important results, some of which are before you today, in the form of our product catalogue, which will list the 600 NIE products currently developed. One study revealed that 73 of these have been used by more than 8,900,000 teachers and students—a rather remarkable record for 3 years. 42 states have schools using over 21 of these products.

We are a small organization, relatively speaking. Resources devoted to education will approximate $116 billion this year in the U.S., but we will spend far less than 1 percent on research and development. Agriculture spends about 14 percent on research and development, while medicine spends over 20 percent. Yet we feel that much good has already come of the investment Congress has made in NIE, and more will come in the future.

For the past 3 years, the staff has worked with programs that were 90 percent "inherited." We are delighted that so many of these have succeeded. But in the next fiscal year, we can begin to "do our own thing," including 2 new programs for building state capacity for dissemination, a new effort in developing better relationship between careers and education, a grants competition for research in the learning of basic skills, an institute for the analysis of teaching, new emphases in competency based education, and a few others. The staff is excited about these new dimensions of our work, as are the practitioners and others we have consulted about them.

In addition to our 5 program areas described in my testimony, we are conscious of the themes of equality of opportunity, broadening the base of educational research participants, including more people and groups in our own planning, and the need for a variety of alternatives in education. My testimony covers where each program area has been and where it is going, and you have been given a summary of 1977 program plans. In addition, several other developments need to be mentioned. We now have coherent program areas, accurate descriptions of the organization and its staffing patterns, the beginnings of a planning operation, a management system that will make monitoring of grants and contracts more effective and increased communication with the education community. Many problems remain. But it is important for Congress to see the evidence that NIE *can* make a difference, and that it has made a difference. We hope to continue that effort, with your concurrence and assistance.

PREPARED STATEMENT OF HON. HAROLD L. HODGKINSON

I am pleased to have the opportunity to appear before you and speak in support of H.R. 5988, a bill to reauthorize the National Institute of Education.

Congress created the National Institute of Education three years ago. The mandate for the NIE was to improve American education through research, development and dissemination activities. It now seems an appropriate time to review our progress toward meeting this mandate and to share with you our vision of future activities.

Education is one of our great national enterprises. It is of central importance to the fulfillment of our national and personal aspirations. The nation invests more than $100 billion per year in education—close to 8% of the gross national product. Yet less than one percent of that total is spent addressing problems and opportunities in education through research and development.

The educational system we have created is second to none. Three quarters of our young people finish high school and about half go on to postsecondary education. This system has been a major factor in bringing us to our present dominant position and is essential in keeping us there.

But we—the public and educators alike—want to do better and must do better. Despite our best efforts we still have many educational problems. For example:

Employers complain that many high school graduates cannot read and write well enough to function effectively on the job.

Many children are denied equal educational opportunity because the language they learned at home is not the language of instruction in the schools.

Many students leave school without knowledge, information and skills for choosing and pursuing a career.

The ability of educational institutions at all levels to provide high quality education is threatened by rising costs and declining enrollments.

NIE can contribute substantially to the alleviation of these and other present and future educational problems by support of:

Efforts to bring into immediate use the results of educational research and development, with special emphasis on the most pressing problems confronting the educational system at this time.

Policy studies providing timely data and analyses to decision makers such as state legislators, Congressmen, and administrators.

Development activities and associated research, based on thorough analysis of educational problems, designed to produce new procedures and programs ready for widespread use in two to five years.

Basic research that promises to increase substantially our knowledge of learning and education and provides the basis for new approaches to education and better ways of dealing with as yet undefined future problems.

PROCESSES OF PROGRAM DEVELOPMENT

Before discussing the specifics of how NIE uses these methods to address problems and opportunities in education, I think it will be helpful to discuss briefly the processes we have gone through in developing our program.

Our legislative mandate was, as you know, a broad one. We were charged with seeking to improve education in the United States through:

(A) helping to solve or to alleviate the problems of, and achieve the objectives of American education;

(B) advancing the practice of education, as an art, science, and profession;

(C) the strengthening of the scientific and technological foundations of education; and

(D) building an effective educational research and development system.

The preamble to our legislation emphasized national policy to achieve both equality and quality in education. It also contained the words: "To achieve quality will require far more dependable knowledge about the processes of learning and education than now exists or can be expected from present research and experimentation in this field". This had led us to develop a new national research and development agenda.

During NIE's first two years, the National Council on Educational Research, our policy making body, and members of the Institute staff worked to translate the Congressional mandate into specific priorities, programs and projects.

During the first three years, more than 90 percent of the Institute's funds were allocated to projects transferred from the Office of Education and the Office of Economic Opportunity. NIE found that, although the projects were of varying levels of quality, there was much that was good, and believed that they should be carried through to completion. A great deal of time was spent in getting them up to their present condition. Some needed to have research and evaluation components built in, while others were reoriented. This work made the projects of greater value and use to more school districts and school personnel. Results already in confirm that this work has paid off in tangible benefits to schools.

In developing the new agenda the Council and the staff believed that the Institute's priorities had to reflect the educational concerns and needs of the education community, the Congress, and the American people. It was also concluded that focusing on a small number of important problems was the best means of using the limited funds available. Advice and assistance came from a wide variety of outside sources. In developing its program, the Institute sought the views of all major education groups. As a result, NIE has broadened its base of support and is working in cooperation with those who must be involved if validated research results are to be translated into widespread practice. There is broad agreement on the appropriateness and importance of the five major problem areas or priorities that NIE is addressing and expects to emphasize during the next three years: Basic Skills; Finance, Productivity and Management; Educational Equity; Education and Work; and Dissemination and Resources.

Details of our programs in these areas follow the discussion of several important themes that cut across all our programs.

CROSS-CUTTING THEMES

The first theme is equality of opportunity, one to which we are strongly committed. In each of our programs, special attention is given to the needs of students from minority groups and low income families, and our Educational Equity program is devoted entirely to those needs. Further, we are committed to equal employment opportunities for our staff and to equality in the selection of outside consultants and advisors.

The second theme is broadening the base of participants in educational research and development as a means of moving in new directions and of building an effective educational research and development system. Ten years ago, a time when there was a limited national capacity for conducting educational research and development, the Congress strengthened the Federal role in educational research and development through Title IV of the Elementary and Secondary Education Act. Special institutions, the Regional Educational Laboratories and the university-based Educational R&D Centers were created by Federal initiative. Now, however, in no small part because of the stimulus of Federal funding and special efforts by NIE to interest a broad spectrum of research people in educational research and development, there is a far more substantial national capacity both public and private. Investigators at many colleges and universities, profit

and non-profit organizations, state education agencies, and local school districts are now capable of and interested in undertaking research in conjunction with NIE's nationally developed agenda.

Third, we have also achieved a broad base of participation in the planning process itself. NIE's detailed research agendas are developed with the cooperation of groups of leading investigators and educational practitioners who work with the staff to define specific problems and suggest research and development responding to them. In this process, NIE seeks, to the extent possible, to achieve a comprehensive approach to the problems it is addressing, bringing to bear all relevant scientific knowledge.

A fourth theme running throughout the Institute is the developing of educational alternatives. Research does not show us the one "right" way to teach children. To the contrary, we consistently find that different students learn best in different ways. Our education system needs alternatives to serve the diverse needs of its students. NIE can help provide those alternatives. As an example, for elementary schools, NIE is developing bilingual/bicultural curricula for Spanish-speaking children and for Native Americans. Another elementary school model, Individually Guided Education, is a comprehensive system which permits teachers and administrators to devise individual programs for each child. Instruction is based upon what the student already knows, how rapidly that student learns, and other personal characteristics. Team teaching is stressed and students are grouped by achievement, rather than by age or grade. For the high schools, NIE developed a career-oriented program that gives students a variety of work experiences in the community. This program, which I will describe in greater detail later, is proving to be an attractive alternative to the traditional academic or business curricula. At the postsecondary level, the University of Mid-America project uses television, newspapers, and special media centers to teach college-level courses to adults, many of whom do not have access to a conventional university. These are but a few examples of the NIE-developed alternatives that can help our schools better meet the diverse needs of their students. Our Dissemination program is providing schools with information and assistance in examining the available alternatives and deciding which are best for their use.

These four themes, equality of educational opportunity, broadening the base of participants in educational research and development, national participation in the creation of research agendas, and the provision of needed alternatives, give a coherence and integrity to the overall mission of the agency. Their presence strongly influenced the selection of the five priorities and continues to influence program decisions within the priority areas.

Now I will turn to a description of the work actually going on in the five priority areas of the Institute. Although the efforts in each area are directed toward alleviating a major educational problem, you will see that there is a range of activities addressing each problem. These activities have been carefully chosen from a much wider set of possibly important approaches and include descriptions of the problem, experimental research, development of products, synthesis of research findings and dissemination. Our sense is that efforts of this breadth are critical to our meeting both the pressing short-range needs of the educational community and developing and consolidating a knowledge base for informed action in the future. The first priority area I will discuss is Basic Skills.

BASIC SKILLS

Thousands of students leave school each year without the basic reading and mathematics skills required for many jobs. The Basic Skills program is designed to insure that all children master the skills needed to function effectively in our society. The primary emphasis is on reading, with a secondary emphasis on mathematics. For two years practitioners and scientists have been helping to plan our work on reading.

In the past the Federal government has sponsored a great deal of research and development on reading in the early grades. This work has already led to improved reading, particularly in the beginning stages of sounding out words. Over the next three years NIE will systematically assemble and analyze the existing knowledge about early reading to determine by 1978 whether substantial improvement would be made through a new generation of curriculum programs.

But skilled reading is more than simply being able to turn text into speech. It involves an understanding of the message; it requires that the reader be able to cull the information he needs in everyday affairs from various materials, such

as technical manuals, government forms, newspapers and magazines. These problems of comprehension have, in the past, received much less attention than the problems specific to early reading. Therefore, NIE is now focusing its research efforts on comprehension. For example, we are concerned with how comprehension is influenced by characteristics of the text, such as vocabulary and syntax, and by characteristics of the reader, such as attention, motivation and intent. We will also investigate how comprehension is affected by different social and cultural contexts. The beneficiaries of these efforts will no longer be concentrated in the early grades, but will include older children and young adults who cannot meet the reading demands with which they are faced.

Research on learning is not sufficient. The Basic Skills group must also deal with how to teach. Some research suggests that training teachers in general skills which they might use in any subject is not productive. Certain skills are related to effective teaching in some subjects, but not in others. For example, in a recent NIE study, only one teacher out of ninety-seven was identified as highly effective in both reading and mathematics. An NIE-funded project directed by the California Commission on Teacher Preparation and Licensing is currently addressing this issue. The purpose of this study is to identify what teachers do that makes a difference in how well their students read and do mathematics. This study, to be completed in two years, will give policymakers in California and many other states information needed to revise their teacher certification requirements and teacher training programs.

The Institute is also funding efforts to individualize instruction. I have already described one such program, known as Individually Guided Education. More than 2,000 elementary schools have adopted this approach; still more use the reading materials from this program. We estimate that by 1978 this program will be disseminated widely enough to be recognized as a truly alternative form of elementary schooling.

In addition to teaching and learning, the Basic Skills program has to be concerned with questions of evaluation and measurement. How do we know whether students are achieving the desired level of competence? How do we know whether the products of educational research and development are effective? Dissatisfaction with current methods of answering these questions is widespread and for the most part justified. Test bias is one source of dissatisfaction. The courts and legislatures are being asked to prevent tests from being used in a way which discriminates against minority or low-income children. But as yet we do not know how to prevent inadvertent misuse and at the same time provide for an adequate assessment of every student's progress. NIE is working to develop more accurate and fairer measures of student achievement and program effectiveness.

NIE also is supporting development of new research and evaluation methods and is attempting to insure that users have access to the best available ones. For example, one NIE project is producing kits which enable practitioners to make a wise choice of tests and do their own evaluations.

FINANCE, PRODUCTIVITY, AND MANAGEMENT

America's school administrators and local school board members are caught in a crunch of rising costs, declining enrollments, and constant demands for better performance. By developing and testing new technologies and alternative organizational structures, the Institute can help make the educational system better able to cope with these pressures.

"Competency-based" education is one idea being explored by many high schools and colleges. In such a program, a student graduates when he or she has mastered certain skills or knowledge, not just upon completing a predetermined number of courses.

The State of Oregon, for example now requires its high school graduates to master certain real-life skills, such as demonstrating first-aid techniques, or answering a job advertisement. NIE is actively supporting such efforts to develop responsible goals and curricula. By 1978, the Institute should be able to provide educators and policymakers with extensive information on the impact and practicality of a state-wide system of competency-based education.

NIE is also aiding local schools and school systems to change their organizational styles and structures in ways that will help them to improve their performance. Initiatives include developing better planning and accountability systems, finding more effective means of broadening participation in decisionmaking, developing strategies that schools can use to locate and make effective use of outside help

and helping schools to do a better job of setting local priorities and implementing decisions. Pilot studies addressing these issues are currently being carried out in urban and rural schools serving over 50,000 students, in locations ranging from Harlem and Watts to the Four Corners area of southeast Utah. Three years from now we will have assisted hundreds of rural communities trying to redefine their educational programs to fit modern rural needs; we will have helped existing teacher centers to do a better job of meeting the professional development needs of thousands of teachers; and we will have provided information and technical assistance to many urban school principals that will help them use modern management techniques to reduce conflict and improve school performance and productivity.

Two other efforts are also developing organizational alternatives for local schools. In a project in Southeast Minneapolis, students and their parents are offered a choice of four schools with distinctly different educational programs. Fourteen schools in San Jose, California offer more than 50 alternative programs, based on interests of teachers, parents and students. Alternatives and innovations such as these hold great promise for revitalizing the organization of our schools.

At the State level, school finance reform is a central concern. A number of State court decisions have concluded that current school finance practices are inequitable. Since 1970, 14 states have successfully revamped their school finance system. NIE recently awarded a contract to the National Conference of State Legislators to study these 14 "success stories" and write a handbook for legislators who are now confronting this complex and controversial issue in other states. In the next three years, NIE will provide technical assistance to States to develop practical solutions to the problems of equalizing school finance.

Another area of interest related to productivity and efficiency is the use of technology. A wealth of new technologies, including television, audio cassettes, videotapes, and computerized instruction, is now being used in schools throughout the country. The Institute is aiding educators by analyzing the cost-efficiency and educational effectiveness of these new technologies. One large-scale project I mentioned earlier—the University of Mid-America—supported by NIE and the Ford Foundation, uses a coordinated system of television, newspapers, and special media centers to teach college-level courses in Nebraska, Iowa, Missouri, and Kansas. This project is demonstrating the exciting potential of technology to reach adults who normally would not have access to higher education. By 1978, we will be able to inform boards of higher education of the cost and impact of this open learning system.

EDUCATIONAL EQUITY

NIE's authorizing legislation states that it is "the policy of the United States to provide every person an equal opportunity to receive an education of high quality regardless of race, color, religion, sex, national origin, or social class." The law further states that while American education has pursued this objective, it has not yet attained the goal of equal educational opportunity.

As I have indicated, concern for equal opportunity is reflected throughout the Institute. For example, the Basic Skills program is concerned with issues of test bias and making sure that all children learn to read. However, to meet the special needs of certain population groups, the Institute organized a special program—Educational Equity—to help schools and colleges find ways to provide more students with equal opportunities for a high quality education.

A major thrust of the Equity program is in bilingual education. The U.S. Civil Rights Commission recently reported that hundreds of thousands of children in America's schools do not speak English as a native language and are being deprived of equal educational opportunities because they do not understand the language of instruction. In Texas, for example, one child in five speaks Spanish as a native language. Texas has officially adopted a bilingual-bicultural curriculum developed with NIE funds. Every school district in the State with more than 20 students of "limited English speaking ability" can now order these Spanish-English materials free of charge. In addition, these NIE-funded bilingual educational materials are being used in 15 other States and in the cities of Chicago and New York.The Institute's Equity program is also funding the development and dissemination of bilingual curricula for other language groups. These alternative curricula will help schools fulfill their responsibilities to provide equal educational opportunities for Spanish-speaking students, Native Americans and other minorities.

Sex role stereotyping has unfairly limited women in their educational and career planning. The result for many women has been low-paying, dead-end jobs. NIE believes that research can provide a better understanding of how sex roles are

taught and how these stereotypes can be eliminated through counseling and improved teaching.

The Educational Equity program is also carrying out a number of important policy studies. Desegregation has been for more than 20 years a controversial issue in American education. Yet little is known about the actual classroom realities in desegregated settings. The Institute is carrying out studies to learn specific means of assisting teachers, principals and school boards who are seeking to achieve high quality integrated education.

Another major policy study, undertaken at the request of Congress, will analyze the nation's $12 billion investment in compensatory education and explore alternative ways to distribute and use compensatory funds. This study will be delivered to the Congress in two years and will provide needed data and analysis for reviewing the Title I program. A final example, also in response to Congressional initiative, is a study of causes of violence in the nation's schools and ways of preventing it.

In addition to demonstrating NIE's responsiveness to Congressional concerns, these policy studies, which will completed by 1978, will provide vital information to state legislators, jurists, school administrators, teachers, and parents confronting these controversial issues.

EDUCATION AND WORK

Relating education to work has long been a concern of the Congress, the business community, parents, and students. Last summer President Ford, in a speech at Ohio State University, expressed his interest in this area. National Commissions and private studies have concluded that students are isolated from the world of work and are not aware of the responsibilities, opportunities, and challenges of adult life. As a result, millions of students leave school each year—both as dropouts and graduates—with little idea of what career they would like to pursue, what options are open to them, and with few of the skills needed to obtain lasting employment.

In response to this problem, the Institute is supporting a program called Experience-Based Career Education (EBCE) which can do much to change the education and work situation. During the past three years EBCE projects have been in operation in high schools in four cities—Philadelphia, Pa., Charleston, W. Va., Oakland, California, and Tigard, Ore. Students participate in a career-oriented program that includes work in basic skills—English and mathematics—the work in the community. In one model, career development has two parts—exploration and specialization. In the exploration phase, the student selects an area of interest and acquires a variety of experience in that area. For example, if a student selects "law and justice" for a 12-week period he or she will work one or two days a week in the police station, in the district attorney's office, and at the city prison. For the next 12 weeks, the student selects another exploration area such as health and works in a community health center or in a hospital job. At the end of the period, the student may have developed a special interest in becoming a medical technician. For the next 12 weeks, the student would work with a medical technician. One such student has become the youngest certified emergency medical technician in the country.

A joint NIE–OE dissemination panel has reviewed EBCE in the four schools and judged it an exemplary project worthy of support. In addition to NIE support the Office of Education's Division of Occupational and Adult Education expects to provide $6 million for vocational educators in schools around the country to adopt or adapt EBCE for each of the next three years. EBCE-like programs will be started in schools in at least 42 states. By 1978, we expect EBCE to be a viable alternative for any high school in the nation interested in a career-oriented alternative for its students.

The Education and Work Program is also supporting research in guidance, counseling and career awareness. For example, an NIE-developed occupational exploration curriculum permits 7th and 8th graders to experience a number of occupations and work environments as part of their regular school program. An inexpensive, practical system to help schools improve their guidance, counseling, and placement programs will be tested in 20 states, and by 1978, will be available nationwide. In fiscal year 1976, the Institute will fund the production of a series of 15-minute television programs to give young children a better understanding of what different jobs are really like. Coordinated with teacher and parent activity guides, this kind of career awareness at the elementary school level is important preparation for a student's career exploration and specialization during the junior and senior high school years.

In addition, adults increasingly need educational services as they face mid-career change or job obsolescence. Other research in the Education and Work program will develop new ways of certifying occupational skills and of increasing adult access to occupational education.

DISSEMINATION

The fifth NIE priority is dissemination—making sure that teachers and administrators have access to the best and most useful results of educational research and development. NIE is employing a variety of strategies to make research information available and to provide assistance in the adoption of tested innovations.

For example, past experience has shown that "people-to-people" contact is important in disseminating information and implementing new programs. Following the example of the successful agricultural extension agents, NIE is supporting a number of states to employ specialists who will work directly with local schools and supply needed information and advice in their selection of new programs. Other funds will help states and districts implement new research products or practices. Often a local district cannot use an innovation such as individualized instruction because it lacks money or expertise. NIE support, in the form of funds and expert assistance, will make it possible for local schools to make improvements in their programs based on what has been created through research and development.

To help get information out to the field, NIE is producing a catalogue which will let local and state educators know what information and products are available and adaptable to local needs. The Institute also publishes reports that summarize new developments or trends in education. One recent report discusses how many of the nation's community colleges are now serving the elderly. It provides a step-by-step guide for community college administrators interested in starting a program for senior citizens. A second report, intended for teachers, summarizes recent research on the cognitive and social development of children. The report gives examples of actual classroom behavior with explanations based on the research, and helps teachers respond to the behavior. These reports will be widely distributed free of charge to educators concerned with these issues.

The Dissemination program will also continue to support and improve the Education Resources Information Center (ERIC)—a network of 16 national clearinghouses that collect, categorize, and make available educational research reports and articles. The ERIC system is now being used more than 10 million times annually by teachers, administrators and researchers.

The Institute has demonstrated its commitment to dissemination by tripling its funding level in fiscal year 1976. By 1978, with support from NIE, at least half the States will have well-developed dissemination programs to provide local educators with the latest results of educational research. In addition, over the next three years, every school district in the nation will receive an updated catalogue of NIE-sponsored products and copies of clearly-written reports that summarize research on topical issues of interest.

CONCLUSION

I have discussed the general need for educational research and development the processes we have used to develop our programs, some themes cutting across all the programs, and the current and planned programs themselves. I will turn now to the specifics of the bill before you and end with a few remarks about my aspirations for the Institute.

The bill before the Committee, H.R. 5988, would authorize the Institute for another three years. It would amend our origina l1972 statute to specify th eissues which the institute should address over this period, consistent with the program I have just described. We would like, in this way, to achieve a mutual understanding with the Congress of the Institute's mission. In addition, the bill would:

Make certain perfecting amendments concerning the National Council on Educational Research relating to requirements for a quorum and expiration of terms of office.

Authorize establishment of research fellowships to facilitate scholars coming to the Institute for short periods for individual research, to work with Institute staff or to receive further training. This authority would parallel that of the National Institutes of Health.

Authorize appropriations for three additional fiscal years.

These changes and extensions would provide the necessary statutory basis for the Federal leadership role in educational research and development over the next three years. I would like in my concluding comments to present briefly the vision of the National Institute of Education toward which I believe we are all striving. That Institute will:

Be a focal point for achieving national consensus on the important current and emerging national problems of education and for designing and carrying out appropriate research and development projects to deal with them.

Provide increasingly strong foundations of knowledge about learning and education upon which teachers, administrators, policy-makers, parents, and students can rely and make this knowledge available in forms which can be utilized by various interested parties.

Give leadership to national efforts to design new ways of providing education, taking advantage of opportunities arising from new knowledge, new ideas, new technological advances, and new interests of society and of students.

Seek to anticipate future educational problems and carry out pilot programs that can form the basis for well designed responses to the problems.

These functions are all ones that require a *national* Institute that can utilize efficiently the intellectual and material resources of the nation and achieve the necessary consensus. They require also a *continuing* Institute which can give sustained attention to educational problems, understand their interconnections, and accumulate experience, expertise, and basic understanding in addressing them through research and development. I believe we have made a good start toward creating such a National Institute of Education. I strongly recommend that the Committee act favorably on our request for reauthorization of the Institute so that these efforts can continue.

Mr. CORNELL. Thank you, Mr. Chairman.

Mr. BRADEMAS. Mr. Hodgkinson, I think that there may well be some other questions that we have really not had time to go into today, but I hope it will be satisfactory if you let the subcommittee send some further questions to you in writing. I know I have several more questions that I would like to ask you.

I want to thank you and Secretary Trotter and Mr. Pforzheimer for your testimony. I would also like to assure you of the strong support that I, as the chairman of this subcommittee, will continue to give to the NIE, and that I think, from my conversations with Mr. Quie, I could say with equal assurance that he shares that attitude.

We are aware of your difficulties in the first really fledgling months in the new enterprise, but it seems to me that for all of the reasons that led the members of this subcommittee to welcome the then President's initiative 5 years ago, it becomes all the more essential that we support first-class research and development on the enterprise of education in the United States now.

I think that you, Mr. Hodgkinson, in your first months as the director, have quite clearly on the record, at least of which I am aware, done an outstanding job, together with your very able associates and the support of the council. So I want to express my own personal appreciation to you and your associates for what you have done so far, and express my own confidence that you are going to continue to do an outstanding job on what, at least in my own view, will come to be, in the years ahead, regarded as a crucial venture for American education.

So I want to thank all of you for having come, and we are adjourned.

[Whereupon, at 11:55 a.m., the subcommittee was adjourned, sine die.]

66-410—76——18

APPENDIX

Prepared Statement of Hon. J. J. Pickle, a Representative in Congress From the State of Texas

Mr. Chairman, one type of Research and Development institution in the nation today securing funds from the National Institute of Education is the regional laboratory. Twenty such labs were established and funded by the U.S. Office of Eeucation under provisions of the Elementary and Secondary Education Act of 1965. Their purpose was to capitalize on basic research but to devote attention primarily to development and dissemination of educational innovations.

Seven years later, with the passage of the Education Amendments Act of 1972, policy, administration, and funding all changed. Research and Development monies essentially are administered by NIE. Their policy is to purchase programs of works from a variety of institutions, including laboratories.

The Southwest Educational Development Laboratory, based in Austin, Texas is one of the eight remaining laboratories. It retains its mission of directing Research and Development effort to the special problems and needs of intercultural education, especially economically disadvantaged Mexican American, black, and Anglo children.

Southwest Educational Development Laboratory has been concerned with determining the educational needs of young children from different minorities, and then designing and developing curriculum programs especially for these children. Programs consist of textbooks, teacher handbooks, multimedia support materials and other curricular aids. The Laboratory has developed both English-language and bilingual programs in Spanish and English. One reading program developed by the Laboratory was accepted by the State Textbook Committee as the only Spanish Reading program recommended for state-wise adoption.

Located in Austin close to the State Education Agency, the State Capitol and its library and archives, and the University of Texas and its major library and computer resources, the Southwest Lab has direct access to additional resources.

During the 1974–75 school year, 18,870 students and 629 teachers in 28 Texas school districts used SEDL developed materials. Approximately 34 percent of the total number of the children and teachers were from the three major metropolitan areas, Houston, San Antonio, and Dallas. Nationally, during the 1974–75 school year, 1026 teachers in 19 states and 2 U.S. territories, taught 30,780 students with SEDL products sponsored by NIE.

I would like to submit a more detailed statement on the many products and accomplishments of this fine facility, and would like to recommend that the committee consider the merits of the language in the bill which will assure the maintenance of such viable institutions throughout the nation.

Unless we assure meaningful sums for the Laboratories, not only would our investment in the Labs be lost, but also the disadvantaged student would lose.

Thus, I strongly urge full authorization to continue the Lab program. The Lab in Austin is doing a good job. There are only eight labs in the nation, and they should be protected, promoted, and permitted to work fully.

Southwest Educational Development Laboratory Data

One type of R & D institution in the nation today securing funds from the National Institute of Education is the regional laboratory. Twenty such laboratories were established and funded by the U.S. Office of Education under provisions of the Elementary and Secondary Education Act of 1965. Their purpose was to capitalize on basic research but to devote attention primarily to development and dissemination of educational innovations.

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One such laboratory is the Southwest Educational Development Laboratory, based in Austin, Texas. One of eight remaining laboratories, it retains its mission

of directing R & D effort to the special problems and needs of intercultural education, especially economically-disadvantaged Mexican American, Black, and Anglo children.

The success of its product development is indicated by the marketing of a number of products which meet specific learning needs of these children as well as by the work upon which agencies and educators can make decisions.

In its product development SEDL incorporates a development technology which makes it possible to assess which products are unsuccessful in order to modify them and thus insure growth in the child. The influence of SEDL's product development has been felt nationally, with programs having been tested and marketed in over 20 states with approximately 130,000 children. After rigorous examination by the Texas State Board of Education, seven products have been selected for the state adoption text book list for use in public schools in Texas beginning August, 1975. These seven products, alone, will reach approximately 5000 teachers and aides with over 110 000 children during actual use in the coming school year. These seven products are:

1. Bilingual Kindergarten
2. Expresión Oral (Spanish Language Development), Grade 1
3. Expresión Oral (Spanish Language Development), Grade 2
4. Bilingual Reading (Spanish Edition), Grade 1
5. Bilingual Reading (Spanish Edition), Grade 2
6. Bilingual Oral Language and Reading, Grade 1
7. Bilingual Oral Lanauage and Reading, Grade 2

Examples of other products currently or previously in use nationally in at least 20 States and Guam include the following.

1. Social Education, Grades 1, 2, and 3: a multimedia Spanish-language program for predominantly native Spanish speakers.

2. Early Childhood Education, Levels I, II, and III: a comprehensive, multimedia program for 3-, 4-, and 5-year-old children designed in its various components for both children who are native English speakers and those who are native Spanish speakers. Level II, for example, is a bilingual package for four-year-old Spanish-speaking children in day care centers.

3. Concepts and Language: an English language based developmental program for five-year-old native English-speaking children.

4. Children's Folklore: a multimedia informal learning program for children, K–3.

5. Thinking and Reasoning: a multimedia analytic thinking program for five- and six-year-olds.

6. Paso a Paso Con Los Ninos: a book and three albums of Mexican folk music and dances, useful in both elementary and secondary Spanish language classes.

7. Follow Through Program: one of two bilingual models for Spanish-speaking children in the United States.

8. A Demonstration Model for Learning for Disabled Students in a High School Program (developed by the Division of Special Education of the Texas Education Agency, the Corsicana Independent School District, the Education Service Center—Region XII, and SEDL): a program which provides training of administrative and teaching staff for secondary-level instruction of learning and/or language disabled students.

9. Changing Curriculum for Exceptional Children (SEDL, the Education Service Center—Region X, and the Richardson and Garland Independent School Districts): a program which provides leadership and training in techniques of curriculum development and modification for teachers of exceptional children.

10. Development of Curriculum for Four-Year-Old Handicapped Mexican American Children: a program which concentrates on curriculum development and supplemental instructional activities for Mexican American four-year-olds with mild to moderate learning problems.

11. Ability Development Program for Five-Year-Old Handicapped Mexican American Children: a program to refine and test assessment instruments and develop materials for increased learning potential for the handicapped Mexican American child (under development).

12. Regional Resource Center: operating jointly with the Texas Education Agency and the Laboratory and housed at the Laboratory, it carries out diagnostic and referral services for rare and inexplicable cases of handicapped children for whom services are not otherwise available.

13. Parenting Materials Information Center: the only such center in the U.S., it serves as a resource to educators and agencies requiring a comprehensive resource on parenting and parent skills.

In its descriptive and experimental research activities, SEDL has produced products for a range of agencies and for educators charged with decision-making and with decision-implementation. Examples of these products include the following:

1. Bilingual Schooling in the United States: a two-volume study of nationwide bilingual educational practices.

2. Study of the Seven-Month School and Modified Migrant Program in Texas: a feasibility study for a compressed school year for migrant children.

3. Study of Entry and Withdrawal Patterns of Migrant Students in Texas: a survey to determine patterns, frequency, time periods, and reasons for late entry-early withdrawal from school.

4. Migrant Travel and Work Patterns: an examination of the nature of travel patterns and related work.

5. Study of Secondary Education and Alternate Strategies for Secondary Program Development: a study of effective ways to address migrant student needs during secondary school years.

6. The Nature and Concept of Giftedness in Mexican American Children: a research project to determine what constitutes giftedness in the Mexican American child.

7. Texas Education Product Study: a survey to collect data from 15,000 former students in 89 school districts to determine how public education in Texas has assisted in preparation for work or post-secondary training.

8. Research to Determine the Relationship of Giftedness to Stage of Cognitive Development: a study of Piagetian cognitive stages which distinguish gifted children, ages five to nine.

9. Design for Status Study and Master Plan for Elementary and Secondary Education: a design for needs assessment and for a model comprehensive long-range plan for education in Louisiana.

In addition SEDL has produced a wide range of products developed for outside agencies and organizations for use on a limited basis. Examples of these include:

1. American Speech and Hearing Association: full videotape coverage of a national workshop on language disorders.

2. National Conference on Equal Opportunities for Mexican Americans: filmstrip kit entitled "Learning English as a Second Language."

3. National Educational Finance Project: filmstrip kit entitled "Future Directions for School Financing."

SEDL's product development, related directly to the needs of children—especially Spanish-speaking children—and to educators and agencies in decision-making capacities, has carried with it the design and implementation of installation strategies for the most effective dissemination. This major activity in product development has served to maintain active products in the field while providing a means for identifying continuing development and training needs for staff utilizing these products. SEDL's dissemination process is an integral part of the development technology applied in product development.

I would like to recommend that the committee consider the merits of language in the bill which will assure the maintainance of such viable institutions throughout the nation.

PREPARED STATEMENT OF ROBERT L. LAMBORN, EXECUTIVE DIRECTOR, THE COUNCIL FOR AMERICAN PRIVATE EDUCATION

Mr. Chairman and members of the subcommittee, this statement is presented for the Council for American Private Education (CAPE) by Robert L. Lamborn, Executive Director of the Council. The nine member organizations of the Council are each themselves national in character. They serve or operate over 13,000 private, nonprofit elementary and secondary schools having nondiscriminatory admissions policies. The schools with which they are associated enroll a very high percentage of the country's 5 million or so private school students—the 5 million students constituting approximately ten percent of the total national enrollment on these levels.

CAPE's Directors have great faith in the potential of the National Institute of Education to serve American education well. We are convinced that there is a proven need for such a national educational research agency. We believe that the Institute is emerging from a difficult period of initial organization with more clearly focused and manageable objectives and that these objectives have been wisely selected. We see substantial evidence that the Institute is being successful

in its efforts to effectively involve individuals who are broadly representative of the educational and research communities in its activities. And we are pleased by its current plans to improve its dissemination procedures so that all school children may benefit from its findings.

The Council for American Private Education, therefore, expresses strong support for the proposed legislation to extend the authorization for the National Institute of Education. We are enthusiastic about the ultimate benefits to be derived from the proposed establishment of research fellowships. Finally, quite conscious of the national economic problems, we urge that the level of appropriations be realistic in terms of the charge given the Institute and respectfully suggest that further consideration be given to the proposed levels of authorization for Fiscal Years 1977 and 1978.

STATEMENT OF EDUCATION TASK FORCE, NATIONAL CONFERENCE OF STATE LEGISLATURES

Chairman Brademas and other members of the House Subcommittee on Select Education, we appreciate the opportunity to testify on the three-year funding reauthorization of the National Institute of Education (NIE).

We appear here today to support the reauthorization of the Institute, particularly that part of the reauthorization that directs the Institute to concentrate its funding on research which seeks solutions to urgent problems in the areas of school finance reform, educational productivity, and equal educational opportunity. These are policy problems that are of persistent concern to State legislatures and we desperately need more practical, applied research for our deliberations on this issue. Consequently, your redirection of NIE research concerns is most welcome.

The national government, though it funds less than nine percent of all educational outlays in this country, should play a major role in promoting high-quality educational research. Though education is heavily State-financed and locally-governed, education is vitally important to the nation's well-being. Our labor force needs to be well-educated in order to increase economic productivity and take full advantage of changing job opportunities. Good education can also strengthen the political and social fabric of our nation by helping people recognize both their rights and duties in a complex and changing society. Education is still vitally important to the quality of our national life and the Federal government ment see to it that it will continue to be so in the future.

This national research responsibility is essential in light of current research that indicates the need for drastic changes in our educational enterprise. The Coleman report and the numerous research studies that either support or rebut that study all agree that schools, as they are presently organized and administered, need substantial improvement. Other research has revealed that we may be spending too much on traditional higher education and need to channel more monies into junior colleges or preschool programs. Still other studies has shown the virtues and defects of alternative school financing schemes: this applied research has done much to promote considerable State experimentation with a variety of new school finance plans since the *Serrano* and *Rodriguez* cases. Research, much of it Federally funded, has shown that we must finance our schools more equitably, run them more efficiently, and make them more responsive to student and community needs.

States, through their Education Departments, legislative research councils, and standing legislative committees are continuing to explore the need for more effective programs and equitable financing policies, but we need increased Federal research assistance to help us make timely and deliberate public policy in education.

We feel that H.R. 5988 can best assist us in several ways. First, more applied and timely educational research will be forthcoming, thereby giving State legislatures new information that often is not developed by our legislative or executive personnel. It also will give us more information for directing State Departments of Education into new areas of policy research. In the present situation, Federal research and planning grants go exclusively to State Education Departments and often result in a severe imbalance of information between State legislative and executive branches. This should be a familiar problem to you at the national level though you have moved vigorously to expand your staff research capabilities—a phenomenon that should occur in more and more States with the passage of time. In short, State legislators and their staffs are in a key position to put good educational research into practice. You help us get good, understandable, and

timely educational research and we will put it to good use as we seek to improve our educational systems.

This also means that State legislatures and staff should be a key focus of the dissemination efforts of NIE. All too often we are the last to hear of educational research advances. Faced with a variety of pressing problems we often cannot spend our valuable time in meeting with executive personnel about how to disseminate new educational materials. Yet, there often is not enough outreach by the information, technical assistance, and intergovernmental relations divisions of the Federal executive agencies. Rather, they feel all too comfortable dealing with their executive counterparts at the State and local level and do not brief legislators and their staff of significant educational research advances. We believe that one reason for the creation of NIE was to redress this shortcoming in educational research and we trust that this new legislation will redirect NIE to that goal.

Meanwhile we at the State level will continue to fulfill our own research responsibilities by more careful scrutiny of the educational and fiscal impacts of our recent school legislation. In Florida, for example, Senate Education staff is embarked on a year-long analysis of our recent school finance law to determine whether we need to change our pupil weighting system and redirect State monies to pupils with traditional or emerging needs. In Michigan, we are in the process of both revising our school aid formula and working closely with the State Department of Education to ascertain how we can better coordinate our highly successful Title I program with Federal ESEA efforts, ultimately producing compensatory education programs of a higher quality.

In South Carolina and Iowa we are working in cooperation with the Legislators' Education Action Program of the National Conference of State Legislatures in studying the impacts of new school finance formulas that we hope will ease rising local tax burdens and improve the fiscal equity of present educational policies. They, in turn, have been aided by an NIE planning grant that is enabling State legislatures to better evaluate the advances made in over 14 States that have drastically changed their school finance formulas since 1971. For your information, one concrete instance of NIE-funded research is attached that is helping us meet our educational responsibilities at the State level.

We are mindful of some of the criticisms recently leveled at the Institute for not turning out enough applied educational research. Such criticism is serious and must be rectified if the Institute is to make an enduring impact at the State and local level.

We are hopeful that the Institute, particularly with the guidelines indicated in H.R. 5988, will become a more useful resource to State and local educational policy members. We can tell you that their new emphasis on research dissemination and their willingness to cooperate with State legislatures in developing their research prospectuses are important signs that more people in the Institute are coming to the realization that if their research is to be effective, it must be of practical import to a great variety of State and local policy-makers, not just educational administrators. We are confident that NIE under its new Director, Harold Hodgkinson, will realize the importance of this part of the NIE mission and upgrade the quality, applicability and timeliness of NIE research. Their pending research in school finance, compensatory education and the relationship of schooling and career development shows promise of offering considerable guidance to us at the State level.

In closing, we feel that the Institute will benefit by this new statement of Congressional legislative intent. Hopefully, we can then proceed to fund the Institute at an adequate level, prevent unnecessary earmarking of research priorities, and find that NIE will, on its own, develop closer ties to the State and local political leaders that bear the ultimate responsibility for turning high-quality educational research into first-rate educational policy.

Thank you for giving us this opportunity to express our opinions. We stand ready to cooperate with the Institute and this Committee in supporting the educational research that will result in the long-term improvements needed in this country's educational system.

PREPARED STATEMENT OF AMERICAN EDUCATIONAL RESEARCH ASSOCIATION, WASHINGTON, D.C.

The American Educational Research Association is a professional organization of over 12,000 members, including economists, political scientists, sociologists, psychologists and historians as well as educators, constituting the main personnel resource for educational research and development in the United States.

The American Educational Research Association expresses its support of the National Institute of Education and the extension of its authorization beyond the FY 75 period. The Institute, with its new leadership, can play an important role in improving educational research, development, dissemination, evaluation, and the assessment of educational needs. These activities should always be planned in consultation with citizens and educators at all levels, both researchers and practitioner-consumers.

We support the continuation of the Council and the several changes in provisions concerning membership on the Council and quorum requirements as helpful in providing continuity of policy direction given to the Institute staff and to HEW.

We support the research fellowship provision which will make possible more extensive consultation and communication between field researchers and the staff of the Institute.

We support the efforts to provide a greater focus for educational research by identifying five priority areas, while expressing concern that other major areas for research—including education and the arts, citizenship education, violence in the schools, as examples—be preserved as options at the discretion of the Council and staff. The Institute should always be alert to identifying and supporting new topics for timely and productive research.

An original objective for the Institute, that of research on teacher effectiveness, should be included on the permanent research agenda, since so much formal instruction takes place in the classroom and this topic should be highlighted as a vital component of educational productivity.

This association supports the continuation of two other features of the legislation: the provision of staff appointments excepted from Civil Service requirements, and the requirement that 90% of the Institute's research budget be spent on research in the field through grants and contracts. These features allow the Institute to call upon the best of available talents throughout the field of educational R&D.

AERA expresses concern about two features of the authorization bill, H.R. 5988, and suggests these modifications:

> The period of authorization should be extended from three to at least five years (fiscal year 1976–80).
>
> Greater financial support should be authorized, with planned increases in the Institute's budget of $35 to $50 million for each of the five years.

Only through this kind of increased dollar investment and long-term legislative commitment and stability in the life of the Institute can research hope to find ways to stimulate enough study on the critical issues outlined and attack such complicated problems as equal opportunity, productivity, career preparation, and effective dissemination of research findings to teachers and agencies who use the results to make a difference in the nation's classrooms.

PREPARED STATEMENT OF ROBERT B. DAVIS, DIRECTOR, THE CURRICULUM LABORATORY, UNIVERSITY OF ILLINOIS, URBANA, ILL.

The critical posture of education today is revealed in myriad ways, unquestionably all too familiar to members of the Congress. What is involved in the consideration of H.R. 5988, extending the authorization of appropriations for the National Institute of Education, is one small but crucially important step toward finding answers to some, at least, of the most pressing questions, and toward the wider implementation and dissemination of some of the most workable solutions. As such, despite its modest cost, this proposed legislation is of quite considerable importance.

The following comments address four issues: some general remarks about the need for educational research and development, and about the progress that NIE has made already, followed by some more specific remarks concerning funding levels, and the case for involving the best practitioners from a wide range of institutions.

NEED

The social need is clear, but the question remains: Can NIE help? Looking over relevant R and D areas in the United States today, one sees many promising developments that can, indeed help and in quite significant ways. A somewhat random list can be suggestive:

(1) *Economics.*—Educational institutions are by no means optimally efficient. Studies of improved decision-making arrangements in the face of the special nature of educational decision-making are already pointing the way to possible economies.

Adjusting resource allocation—especially the time of professionals—to achieve a more precise match with needs can also result in significant economies. NIE has already begun some promising work in this direction. Given the vast size of American education, even small increases in economic efficiency could well produce savings greater than the entire amount of the NIE budget.

(2) *Student achievement.*—We do not yet know why some students learn so much, while others learn so little from formal school experiences, but we are beginning to get some valuable leads. Understanding this phenomenon, and being able to influence it, could make a major difference in the effectiveness of our educational system, and in the employability of our citizens.

(3) *School environment.*—School environments can be of many different types: humane, cooperative, and sincere; superficial, lacking in genuineness, impersonal; abrasive, marked by hostility and even violence. Which kind of environment each school has is a matter of fundamental importance. Here, again, are phenomena that must come to be understood far more clearly.

(4) *Engineering High Schools.*—A group of engineers and educators, representing institutions across the entire United States, have begun working together to create some high schools in urban areas that will be devoted to effective pre-engineering education. This is needed if urban and minority youth are to enjoy effective entree into the engineering professions.

(5) *The Use of Technology in Education.*—Our American standard of living depends upon productivity, which in turn depends upon capital-intensive (rather than labor-intensive) forms of work. Among major sectors of our economy, only education has remained persistently labor-intensive with a resulting absence of gains in productivity. Technology that could make a difference is now beginning to appear—but it cannot reach the level of significant development and helpful deployment without substantially larger research and development investments. Progress in this area could be of sizeable benefit to students, to teachers, and to those industries that could manufacture and supply the necessary equipment.

This list could be expanded considerably, but the central point should be clear. There do exist many areas where R and D expenditures can produce desirable results that will be visible to people and helpful to people. Of course, in the past, some so-called R and D has dealt only with matters of no real importance. This must not be permitted to blind us to the extremely valuable results of well-directed research and development activities. The task is to distinguish R and D which has a reasonable chance of making important contributions, as against proposed R and D which does not have a reasonable chance of making any important contribution. This is no simple task, but the excellent professional staff which has been assembled at NIE, together with their advisors and consultants, should be able to make this distinction as well as it can be made.

PROGRESS THUSFAR

Indeed, the professional staff assembled at NIE is one of the strongest reasons for optimism. Careful planning, in which both the Executive Branch and the Congress have participated, has created an organization with quite remarkable potential.

Besides the difficult task of recognizing which R and D holds real promise of results, there is a further problem facing research and development programming for education, namely, the multiplicity of viewpoints that compete for attention. At the level of professional planning, NIE has already made an impressive beginning in bringing together the most useful theory and the most knowledgable practice, in bringing together proponents of many different views of education, and in bringing together a wide range of relevant disciplines. Indeed, a surprising situation has been created where the wisest university faculty member, attending a session at N.I.E., finds the professional staff to be scholarly, serious, and well-informed. The visitor feels at home among professional colleagues; and, what is particularly noteworthy and important, the most experienced practical person, from the most severely stressed educational setting, finds an equally relevant professional reception at N.I.E. Both "theorist" and "practitioner"—indeed, any combination of teachers, administrators, students, scholars, and parents—will recognize that, at N.I.E., there is a professional staff that is concerned about real problems, who are obviously experienced in the real world of education, and who have a strong, well-informed determination to achieve effective solutions wherever possible. The successful integration of so large a diversity of backgrounds is a major accomplishment, and a powerful resource for future achievements.

FUNDING LEVELS

Unfortunately, this professional staff has not, thusfar, had an adequate budget to produce very many new initiatives. From the moment of its creation, N.I.E. has been saddled with previously-made committments inherited from other agencies, that have consumed very nearly its entire budget. What, indeed, is an appropriate funding level for educational R and D? There are many ways to arrive at an answer: comparisons with other industries, from the railroads to electronics; surveying those present R and D activities that show the most promise, and estimating their cost; estimating how much money might be saved elsewhere by investments here; and many others. Any one of these methods would lead to a recommended budget far larger than 80 million dollars. Twice that amount could be invested effectively and without waste.

WHERE TO LOOK FOR R. & D.

To build a maximally-effective research and development program requires the involvement of a wide range of researchers, from many different disciplines, and from many different organizations. They must be selected by a single criterion: likelihood of successfully contributing to the solution of major educational problems. Proposals to restrict the search for the most effective researchers by the imposition of arbitrary constraints must necessarily have adverse effects on the ultimate results. In particular, the suggestion that 35 to 40 percent of N.I.E.'s total budget must be spent on the support of Regional Educational Laboratories or on the existing Research and Development Centers will not help produce the most beneficial results. While the desire to provide continuity of support to specific institutions is understandable, it unfortunately implies an interference with the search for the most promising R and D programs, it implies the rejection of qualified researchers for the sole reason that they are not associated with specially-designated institutions, and it makes impossible the obtaining of the most helpful and valuable outcomes for schools, teachers, and youth. An unhampered search for excellence, effectiveness, impact, and relevance is a far better way to proceed.

ASSOCIATION OF TEACHER EDUCATORS,
Washington, D.C., July 10, 1975.

HON. JOHN BRADEMAS,
House of Representatives, Rayburn House Office Building,
Washington, D.C.

DEAR SIR: The Delegate Assembly which serves as the official policy making body of the Association of Teacher Educators and is composed of equal representation from the schools and higher education institutions debated at some length the purposes, past accomplishments, and factors which appear to have limited the effectiveness of the National Institute of Education.

The resolution which follows and which was passed unanimously clearly describes the posture and commitment of the Association which I currently have the honor of serving as President and is submitted for your consideration:

"Whereas the Association of Teacher Educators has a long and distinguished history of service to the professional education community, and

Whereas the Association of Teacher Educators has long recognized the importance of basic research in the teaching-learning process, and

Whereas the Association of Teacher Educators recognizes the support of such basic research as fundamental to the necessary financial and psychological commitment of the federal government to the growth of the profession of education and the education of the children of the United States, be it

Resolved, 1. That the Delegate Assembly direct the President of the Association of Teacher Educators to communicate its support for the concept of the National Institute of Education to the President of the United States and all appropriate members of the committees of the House of Representatives and Senate of the United States.

2. That such written communication strongly request that the President and the Congress give consideration to a continuing commitment of financial resources to ensure basic research in the teaching-learning process.

3. That each state, regional, and local ATE unit be requested to support the concept of the National Institute of Education and the continuation of financial support for basic research."

Sincerely,

DUAINE C. LANG, *President.*

NATIONAL ACADEMY OF EDUCATION,
Stanford, Calif., July 17, 1975.

HON. JOHN BRADEMAS,
The U.S. House of Representatives,
Washington, D.C.

DEAR JOHN: I write as current president of the National Academy of Education to support once again the National Institute of Education.

In view of the President's anticipated veto of the education appropriation I would assume that it will be some time before the authorized appropriation for fiscal year 1976 will be settled. I very much urge that the minimum level of $80,000,000 be adhered to.

What is more important is to speak out on the fiscal year 1977 budget for NIE. The members of the Academy are broadly concerned at the difficulties of putting in place in this country a stable and effective institution for funding educational research. Part of this difficulty seems to me to be the fault of organizations like the Academy or the American Educational Research Association. Educational researchers are admittedly a small percentage of the total number of educators in this country. It was my hope that the needs of the larger education community would be served by the U.S. Office of Education and that NIE would be especially dedicated to educational research.

I do not believe that matters have worked out this way. For example, the pressures from the National Educational Association on NIE are more substantial and considered more important than the combined views of all the educational researchers put together.

I write therefore in addition to ask if there are ways in which I can help improve the visibility of research needs in education. What is important, it seems to me, is that the Academy is not a political advocate of any narrowly conceived program of research. I am sure that it would be totally inappropriate for me to speak in terms of the political needs or views of Academy members. What I am anxious to do is to emphasize to you as one of the most important members of Congress and as a national spokesman for education in the Congress that we badly need in this country a stable and effective government institution to sponsor and to direct educational research. I still believe that NIE can be that organization. We need funding and we need freedom from direct political pressures in the direction of research to guarantee the right result.

Sincerely yours,

PATRICK SUPPES, *President.*

THE UNIVERSITY OF CHICAGO,
Chicago, Ill., July 21, 1975.

MR. JACK DUNCAN,
House Select Subcommittee on Education,
Rayburn House Office Building, Washington, D.C.

DEAR MR. DUNCAN: I am writing in support of House Bill 5988, introduced by Mr. Brademas with the intention of extending the authorization of the National Institute of Education beyond its expiration date of July 30, 1975.

All of us concerned with the improvement of American education are deeply affected by the program of the National Institute of Education and depend heavily on its continuance. Though I realize that the Institute has gone through a rather rocky period with some detriment to the influence it was intended to provide, I am fully convinced that this Institute remains the major source of leadership in the field of education at the federal level.

The alterations that are planned in the existing structure of the Institute make sense to me. In particular, I am very much in support of the establishment of research fellowships similar to those authorized under the National Institute of Health. Though I am unhappy with the relative level of financing planned for the Institute in the near future, I am confident that if the Institute is kept alive, its contribution to the quality of education in our country will become sufficiently obvious to warrant an escalation of the level of its funding.

The new focus of the Institute on five problem areas makes sense to me, though I confess to be a little uneasy about a programatic focus of this sort implied in the naming of those areas. I assume, however, that these foci will change from year to year and that the Institute will not be locked in to a concern with career education, basic skills, or any particular set of concerns that may vary somewhat from year to year as our knowledge grows and as the public mood changes.

In sum, I would urge that the House move to back the Bill renewing the authorization of the Institute. If my personal testimony would contribute toward that end, I would be pleased to supply it.

Sincerely,

PHILIP W. JACKSON,
Dean and Chairman.